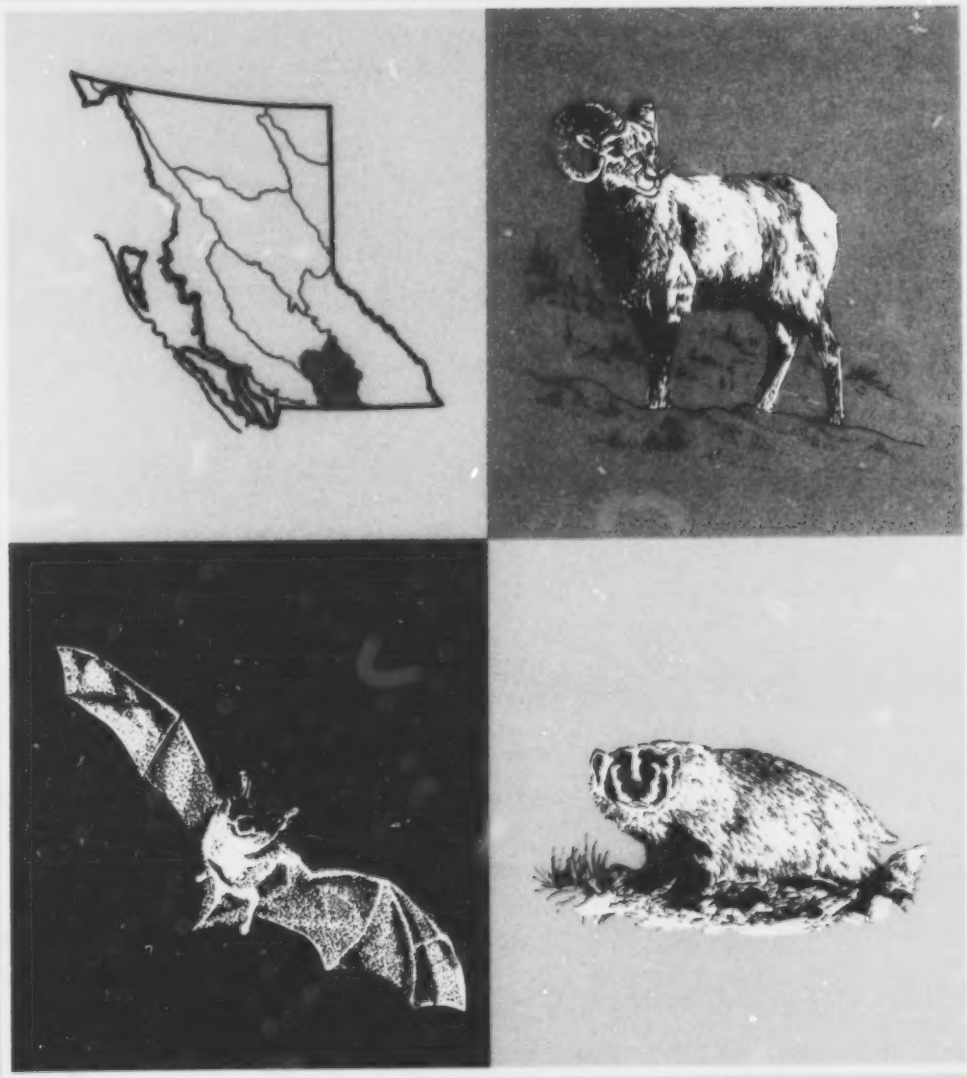
WILDLIFE HABITAT Handbook

for the Southern Interior Ecoprovince



Vol. 5 Species — Habitat Relationship Models for Mammals

BC

Ministry of Environment Ministry of Forests

90-06727/

WILDLIFE HABITAT HANDBOOKS FOR THE SOUTHERN INTERIOR ECOPROVINCE

VOLUME 5: SPECIES - HABITAT RELATIONSHIP MODELS FOR MAMMALS

Ralph Ritcey
David Low
Alton Harestad
R. Wayne Campbell
and
Andrew P. Harcombe

A cooperative effort of the
Ministry of Environment (Wildlife Branch),
the Ministry of Forests (Research Branch),
and Wildlife Habitat Canada

Andrew P. Harcombe
Technical Editor
Wildlife Branch
Ministry of Environment
Victoria, B.C.

Wildlife Habitat Research WHR-32
Wildlife Report No. R-19

1988

Copies of this report may be obtained,
depending on supply, from:

Research Branch
Ministry of Forests
1450 Government Street
Victoria, B.C.
V8W 3C7

Public Affairs and Communications Branch
Ministry of Environment
780 Blanshard Street
Victoria, B.C.
V8V 1X5

Citation: Ritcey, R., D. Low, A. Harestad, R.W. Campbell, and A.P. Harcombe. 1988. Species-habitat relationship models for mammals. Volume 5 in A.P. Harcombe (tech. ed.). Wildlife habitat handbooks for the Southern Interior Ecoprovince. Ministry of Environment and Ministry of Forests, Victoria, B.C. 252pp.

Canadian Cataloguing in Publication Data

Main entry under title:
Species-habitat relationship models for mammals

(Wildlife habitat handbooks for the southern interior ecoprovince, ISSN 0847-0723 ; v. 5) (Wildlife habitat research, ISSN 0825-2769 ; WHR-32) (Wildlife report, ISSN 0829-7797 ; no. R-19)

Co-published by the Ministry of Forests Research Branch.
Includes bibliographical references.
ISBN 0-7726-0988-8

1. Mammals - British Columbia - Habitat. 2. Wildlife habitat improvement - British Columbia. I. Ritcey, R. W. (Ralph W.) II. British Columbia. Wildlife Branch. III. British Columbia. Ministry of Forests. Forestry Division. Research Branch. IV. Title. V. Series. VI. Series: Wildlife habitat research ; WHR-32. VII. Series: Wildlife report (Victoria, B.C.) ; no. R-19.

QL721.5.B7S63 1989 639.9'79 C89-092206-3

c 1988

PREFACE

This publication is part of the series "Wildlife Habitat Handbooks of the Southern Interior Ecoprovince". The purpose of this series is to provide forest, wildlife, and range managers with the knowledge and tools to assess impacts of various land management practices on wildlife and its habitat. Basic to this assessment process is an understanding of wildlife's relationship to habitat.

The information in this series applies specifically to the Southern Interior Ecoprovince and similar ecosystems in the southern area of British Columbia. The principles and processes described, however, apply generally to all managed forests and rangelands, when the welfare of wildlife is affected by land management decisions.

The series is a comprehensive package composed of eleven separate volumes. Although each part will be an independent treatment of a specific subject, when combined in sequence, the individual parts will be as chapters in a book. The final sequence is shown on the inside back cover of this publication, but individual chapters will be printed as they become available. Though this ensures that the information will be used as quickly as possible, the order of production will not be the same as the final organized order.

"Wildlife Habitat Handbooks of the Southern Interior Ecoprovince" is a cooperative effort of the British Columbia Ministries of Environment (Wildlife Branch, Fisheries Branch), the Ministry of Forests (Research Branch), the Ministry of Municipal Affairs, Recreation and Culture (Royal British Columbia Museum), the University of British Columbia and Simon Fraser University, and the Canadian Wildlife Service.

Andrew P. Harcombe
Technical Editor
Victoria, B.C.

ACKNOWLEDGEMENTS

This wildlife habitat handbook volume was funded by the Research Branch of the Ministry of Forests, the Wildlife Branch of the Ministry of Environment, and Wildlife Habitat Canada (Communications and Education). The production of this report depended strongly on the exhaustive participation of wildlife biologists at modelling workshops. Ralph Ritcey, Dave Low, AltonHarestad, and Wayne Campbell gave freely their extensive experience and knowledge. In particular, it was their ability to refrain from saying "we do not know" and instead make predictions based on their expert opinion that resulted in the completion of these models. Andrew Harcombe was responsible for organizing the model workshops, instructing the participants, and attempting to guide them through intensive sessions of mental acrobatics.

The authors would like to thank Lynne Foxall, Dauna Walker, and Darla Cooper for their patience in typing this document and in enduring the changes and editing that invariably follows. Intensive editing was done by Tracy Hooper and Elizabeth Stanlake, while Linda Stordeur prepared the final format prior to publication. Cover design was by Nicholas Newbeck. Graphics were prepared by Gail Harcombe, Glenn Kubian, and Rick Thomas.

CONTENTS

PAGE

1. INTRODUCTION
   1.1 Background, Philosophy, and Limitations 3
2. SPECIES-HABITAT RELATIONSHIP MODELS
   2.1 Explanation of the Species - Habitat Relationship Data Base 9
   2.2 Species-Habitat Relationship Models 13
3. REFERENCES CITED 225
4. INDEX TO SPECIES 229
5. APPENDICES
   5.1 Land Areas Required to Support Minimum Populations 233

1 Introduction

1. INTRODUCTION

1.1 Background, Philosophy and Limitations

The major wildlife goal in British Columbia is to maintain the diversity of species. This is a difficult goal to achieve with the large number of species, habitats, and land use activities. For most species, the desired information for management is scanty, scattered, and descriptive. Thus it is difficult to predict outcomes of land use practices on habitat and on wildlife, especially with few staff, low budgets, and high rates of habitat change.

The wildlife habitat handbook project was initiated to develop planning tools to aid wildlife habitat managers in predicting consequences of management activities on habitat and therefore on wildlife. Two major premises of this handbook are:

1) most wildlife habitat will be managed indirectly by influencing other resource managers to modify their activities for the benefit of wildlife;
2) all wildlife species and their habitat requirements must be considered in the process.

This handbook system organizes biological data for various ecosystems or habitats, in a framework that assists resource managers in predicting consequences and in developing alternatives. It is based on similar approaches to species diversity management in the United States. Our approach was to begin with a pilot study in the Southern Interior Ecoprovince (see Figures 1 and 2). This set of information pertains only to the Southern Interior Ecoprovince, and may not be valid in other areas of the province.

The following report assimilates knowledge on the relationships between mammals and their habitats, based on a blend of literature and professional expertise. Several assumptions are made. The first is that habitat requirements of wildlife can be related to successional stages for most habitats, and the second is that the resulting values (i.e. relating animal use to habitat) are a good approximation of those habitat requirements. The third assumption is that of the possible life requisites, the three most important are feeding, reproduction, and special needs. The fourth assumption is that habitats of comparable value to a species seasonal needs can be substituted for each other. Very little experimental data or documentation were available on which to base the model ratings. Whenever information in the literature was not definitive, we used judgement and inferences. The guiding philosophy for using these data was to be flexible and to do the best with present knowledge, while always looking at ways of improving as more knowledge is gained.

Extensive *habitat* management by using such activities as logging and grazing is relatively new, and wildlife inputs to the planning process must be initiated for all wildlife species. A knowledge of wildlife-habitat relationships will aid in the development of coordinating guidelines to integrate these requirements with other land use activities. This system will not resolve all problems; rather, it will provide a systematic organization of available biological information on species and their habitat needs in a useful way. Professional input by biologists will still be needed to ensure correct interpretations and to validate the applicability of models, which represent "average" conditions and anticipated responses. Other resource uses will continue regardless, and our best knowledge, though often inadequate, must be utilized now; we cannot afford to wait for better data quantity or quality.

Figure 1. Location of the Southern Interior Ecoprovince.

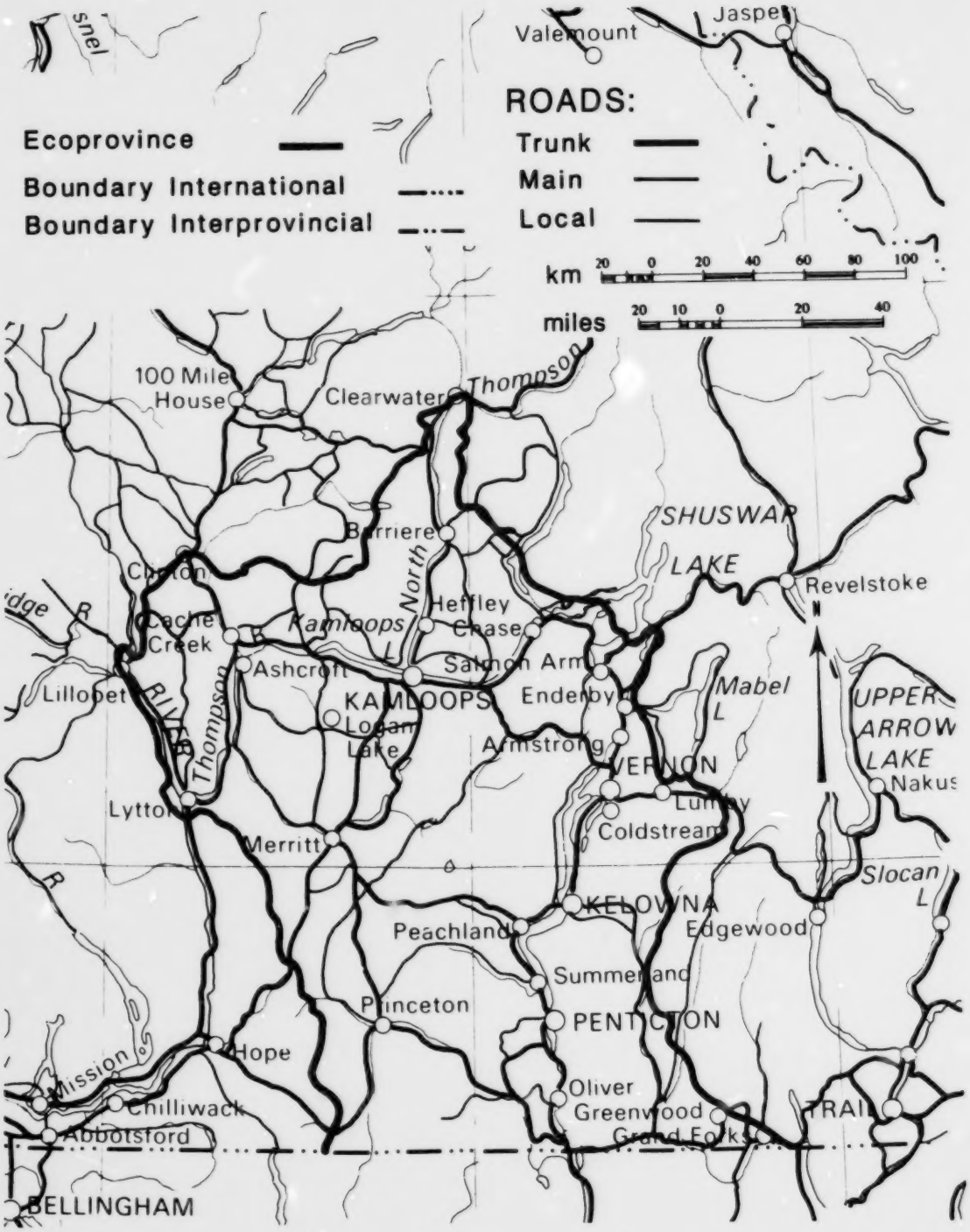


Figure 2. The Southern Interior Ecoprovince.

2

Species Habitat Relationship Models

2. SPECIES-HABITAT RELATIONSHIP MODELS

2.1 Explanation of the Species-Habitat Relationship Data Base

Species nomenclature follows that described in Volume I. Accepted common names have been modified to fit Nagorsen (in draft). For synonyms, codes, and scientific names, refer to Volume I (Stevens and Lofts 1988).

For each species (see Chapter 4 for complete listing), a standardized set of information is provided in two types of tables. The first table consists of a listing of all habitats or habitat complexes used by that species; the seasons it uses each habitat; and the expected relative abundance of the species in that habitat. For the habitat classification, we followed a province-wide scheme (Harcombe and Lea (in prep.)); detailed descriptions of habitats used in the models may be found in Harcombe *et al.* (1988).

For seasons, we use summer (S) and winter (W). Summer, as used here, includes the traditional seasons of spring, summer, and fall, unless spring and/or fall are explicitly named separately. For relative abundance, we followed a five-part scale of absent, rare, scarce, common, and abundant. For mammals, we did not assign numbers to these categories of abundance; the categories are used as abundance relative to all other mammal species. Hence, a species with a very large home range may only achieve a rare or scarce category, even if that species is at maximum densities. Abundance is strictly a qualitative rating.

The second set of tables or matrices displays the species-habitat relationship values for:

1) all habitats in which the abundance was rated as common or abundant for a particular season of use; or
2) all habitats in which the highest abundance category was only scarce.

This principle was followed since we expect that most species will only be managed in habitats where they are fairly common or if they are very scarce.

There are three formats to the species-habitat relationship matrices, depending on the habitat: 1) upland and wetland habitats; 2) aquatic and deepwater habitats; and 3) man-influenced habitats. All matrices identify the habitat and applicable season of use for the model. For all native upland or wetland (palustrine) habitats, the tables display a full set of successional stages (see Figure 3). These successional stages are designed primarily for forested habitats, but are also used when only herbaceous or shrub-dominated stages exist for the habitat. For example, suitability values for a shrub wetland complex will only be entered under the first two successional stages. The six successional stages are:

1) grass/forb: herbaceous-dominated; usually the first successional stage for most upland habitats; herbaceous cover exceeds 5%; shrub or tree canopy is less than 5%.
2) shrub/seedling: dominated by woody shrubs or seedling trees (less than 3 cm dbh) or both with cover exceeding 5%; tree canopy is less than 5%; includes shrubs in both the tall shrub layer (B1 - between 2 m and 10 m tall) and the low shrub layer (B2 - below 2 m high). Species of low woody form or of doubtful lifeform are assigned to the herbaceous layer - these are listed in Walmsley *et al.* (Table 4.2, p. 141, 1980).
3) pole sapling: dominated by trees; tree canopy exceeds 5% closure; trees are generally less than 25 cm dbh; natural thinning is not underway; canopy is more or less even height; stands are generally less than 40 years old.
4) young: dominated by trees; tree canopy exceeds 5% cover; trees are generally 25-60 cm dbh; natural thinning beginning; stands are usually less than 80 years old, and not considered mature enough for harvesting.
5) mature: dominated by trees; tree canopy exceeds 5% cover; trees usually greater than 60 cm dbh; natural thinning underway; stands are usually 80-150 years old; understory regeneration of climax species well established.
6) old growth: dominated by trees; tree canopy exceeds 5% closure; dominant trees have greater than 60 cm dbh; all age and height of tree classes are represented; dead and down trees are present; stands usually older than 150 years.

Each of the latter five successional stages have been subdivided into three canopy closure classes, as closure strongly influences understory vegetation. The canopy closure classes are:

1) sparse (S): 0-25% canopy closure; this includes B.C. Forest Service inventory cover classes 0, 1, and 2.
2) moderate (M): 26-65% canopy closure; this includes B.C. Forest Service inventory cover classes 3, 4, 5 and 6.
3) dense (D): 66-100% canopy closure; this includes B.C. Forest Service inventory cover classes 7, 8 and 9.

Three additional columns are added after the successional stages to provide for ratings of specific habitat elements. These habitat elements are vegetative components that are not specific to any particular

successional stage (and thus cannot be readily predicted from cover maps yet are important to wildlife). They are needed in a particular successional stage to attain the indicated value. The habitat elements are:

1) down materials (DM): trunks and limbs of trees in various stages of decomposition found on the forest floor of the habitat (dead and down woody material)
2) snags (SN): standing dead or dying trees from which the leaves and most of the limbs have fallen; broken off trees more than about 3 metres tall are included.
3) deciduous (DEC): pertaining to a deciduous domination of that particular successional stage; used when coniferous domination is the normal condition for the habitat succession, though the presence of deciduous trees may greatly improve the suitability.

For the aquatic habitats, a second matrix format is used (see Figure 4). Values for the shallow open water habitat class are listed under "Pond". For other freshwater aquatic habitat classes, subdivisions are based on aquatic zones and substrate types. The aquatic zones are:

1) shore: substrate is continuously exposed, with less than 2% vegetation cover.
2) littoral: extends from shoreward boundary to a depth of 2 m below low water or to the maximum extent of plant rooting, whichever is greater; used in both lake and stream habitat classes.
3) deepwater or limnetic (DEEPW): open water, not closely associated with a bottom; restricted to the lake habitat class.

Substrate types are defined as:

1) rock (R): substrate consists of greater than 75% areal cover of stones (greater than 25 cm in size), or bedrock and vegetative cover is less than 26%.
2) unconsolidated (U): substrate with at least 25% areal cover of particles smaller than stones [1]; vegetative cover less than 26%.
3) aquatic bed (A): substrate with at least 26% vegetative cover, being dominated by plants that grow principally on or below the surface of the water for most of the growing season.

For man-influenced habitats and special habitats, a third matrix format is used (see Figure 5), in order to save space for "single entry" habitats. Only orchard habitat class is subdivided into young and mature (fruit-bearing), with moderate or dense canopy closure. The other habitat classes are cultivated field (C.FLD), pasture (PAST.), urban, barren (BARR.), man-made elements (M.M.ELE.) such as buildings and bridges, and special habitats (cliffs and caves).

The estimated value of a component of a habitat for a species seasonal life requisites is called the suitability index. This is a relative value, with four ratings of high (h), moderate (m), low (l), or nil:

1) high: provides for life requisites (reproduction, feeding, or designated special needs [2]) and supports a relatively high population density (as implied by probability of occurrence of greater than 50%); can support positive recruitment (an increasing population or a stable population with dispersal); unit use greater than 50% of the time; this optimal value suggests that the minimum population numbers (see Appendix 5.1) will be met; that is, 1 hectare of the habitat rated with H will provide 1 hectare of the required area.
2) moderate: provides for life requisites (reproduction, feeding, or designated special needs); supports medium population density (as implied by probably of occurrence of 26-50%); can support a stable population, with no dispersal excess; unit use 26-50% of the time; estimated to be one-half the value of high, and thus it will take 2 hectares of habitat to satisfy 1 hectare requirement for minimum population (see Appendix 5.1).
3) low: provides for life requisites (reproduction, feeding, or designated special needs); supports relatively low population density (as implied by a probability of occurrence less than 25%); supports viable population only with immigration or inhabited primarily by colonizing individuals; unit use less than 25% of the time; estimated to be one-fifth the value of high, and thus it will take 5 hectares of habitat to satisfy 1 hectare requirement for minimum population (see Appendix 5.1).
4) nil: designates that the habitat component is judged to be of little or no value to the species because it does not meet a species life requisites. The species is not expected to occur in the habitat.

All habitats are rated comparatively to each other to the degree possible. Hence, highs are equal with respect to meeting habitat requirements of a species, and similarly rated successional stages/canopy closure habitat components can be substituted for each other both within and among habitat classes. This means that in a system of planned manipulation of wildlife habitats, alternative amounts and kinds of habitat can be used to minimize impact on the habitat for species of special management concern; the status quo is not the only or possibly the best alternative.

[1] includes cobbles (7.5-25 cm); gravel (2mm-7.5 cm); sands 0.05-2.0 mm; silts (0.002-0.05 mm); and clays (less than 0.002 mm) (Walmsley *et al.* 1980.)

[2] possible designated needs include climatic extreme avoidance, antiprdator cover, and migratory/movement cover.

Name of Habitat		
Season to be Rated i.e.: summer, winter or yearlong		
Types of Uses for which each Habitat will be Rated	Successional Stages / Canopy Closure Classes	Special Elements
	Habitat suitability index, based on season of use, for the type of use	

Figure 3. Example of a matrix for upland or wetland habitats.

Name of Habitat		
Season to be Rated		
Types of Uses for which each Habitat will be Rated	Pond	Aquatic Zones / Substrate Types
	Habitat suitability index, based on season of use, for the types of uses	

Figure 4. Example of a matrix for aquatic habitats.

Name of Habitat		
Season to be Rated i.e.: summer, winter or yearlong		
Types of Uses for which each Habitat will be Rated	Man-influenced Habitats Age Canopy closure classes	Special Habitats
	Habitat suitability index, based on season of use, for the types of uses	

Figure 5. Example of a matrix for man- influenced habitats.

2.2 Species - Habitat Relationship Models

SOUTHERN INTERIOR ECOPROVINCE

Masked Shrew

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	abundant
spruce riparian	yearlong	abundant
Engelmann spruce - subalpine fir dry parkland	yearlong	abundant
black cottonwood riparian	yearlong	abundant
bunchgrass grassland	yearlong	scarce
alpine meadow/subalpine meadow	yearlong	common
shrub wetland	yearlong	common
sedge wetland	yearlong	common
marsh	yearlong	scarce
cultivated field	yearlong	scarce
orchard/vineyard	yearlong	scarce

HABITAT Douglas-fir - lodgepole pine																			
SEASON OF USE yearlong																			
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		1	1	1	m	m	1	m	m	1	m	m	h	m	m	h			
REPRODUCTION		1	1	1	m	m	1	m	m	1	m	m	h	m	m	h			

Masked Shrew

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	m	m	m	m	m	m	m	h	h	m	h	h	h	h	h			
REPRODUCTION	1	m	m	m	m	m	m	m	h	h	h	h	h	h	h	h			
HIDING COVER																	h		

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	m	m	m	m	m	m	m	h	h	m	h	h	h	h	h			
REPRODUCTION	1	m	m	m	m	m	m	m	h	h	h	h	h	h	h	h			
HIDING COVER																	h		

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	m	m	m	m		m	m		m	m							
REPRODUCTION	1	1	m	m	m	m		m	m		m	m							

Masked Shrew

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	m	l	m	m	l	m	m	m	h	h	m	m	h			
REPRODUCTION	l	l	m	m	l	m	m	l	m	m	m	h	h	m	h	h			
HIDING COVER																	h		

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l																		
REPRODUCTION	l																		

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	m															
REPRODUCTION	l	l	m	m															

Masked Shrew

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1																		
REPRODUCTION	1																		

SOUTHERN INTERIOR ECOPROVINCE

Vagrant Shrew

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	abundant
spruce riparian	yearlong	abundant
Engelmann spruce - subalpine fir dry parkland	yearlong	common
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	abundant
bunchgrass grassland	yearlong	scarce
alpine meadow/subalpine meadow	yearlong	common
shrub wetland	yearlong	abundant
sedge wetland	yearlong	common
marsh	yearlong	scarce
cultivated field	yearlong	abundant
orchard/vineyard	yearlong	common
pasture	yearlong	scarce
urban	yearlong	scarce

HABITAT Douglas-fir - lodgepole pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1														
REPRODUCTION	1	1	1	1	1														
HIDING COVER																	h		m

Vagrant Shrew

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	m	m	1	1	1	1	1		1								
REPRODUCTION	1	1	m	m	1	1	1	1	1		1								
HIDING COVER																	h		

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	m	m	1	m	1	1	1	1	1	1	1	1			
REPRODUCTION	m	m	h	h	m	m	1	m	1	1	1	1	1	1	1	1			
HIDING COVER																	h		

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	m	m		m	m		1	1		1	1		1	1				
REPRODUCTION	1	m	m		m	m		1	1		1	1		1	1				
HIDING COVER																	h		

Vagrant Shrew

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	l	m	m	l	l	m	l	l	m	l	l						
REPRODUCTION	l	l	l	m	m	l	l	m	l	l	m	l	l						
HIDING COVER																	h		

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	m	h	h	m	m	m	h	h	h	h	h	h			
REPRODUCTION	l	l	m	h	m	h	h	m	m	m	h	h	h	h	h	h			
HIDING COVER																	h		

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	l																		
HIDING COVER																	h		

Vagrant Shrew

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h		h	h	h															
REPRODUCTION	m		h	h	h															
HIDING COVER																		h		

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																			
REPRODUCTION	m																			
HIDING COVER																		h		

HABITAT cultivated field												
SEASON OF USE yearlong												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	m										
REPRODUCTION	m										

Vagrant Shrew

HABITAT orchard/vineyard											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			m	m	m	m					
REPRODUCTION			1	1	1	1					

SOUTHERN INTERIOR ECOPROVINCE

Dusky Shrew

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	abundant
spruce riparian	yearlong	abundant
Engelmann spruce - subalpine fir dry parkland	yearlong	common
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	abundant
bunchgrass grassland	yearlong	scarce
alpine meadow/subalpine meadow	yearlong	common
shrub wetland	yearlong	abundant
sedge wetland	yearlong	common
marsh	yearlong	scarce
cultivated field	yearlong	scarce
orchard/vineyard	yearlong	scarce
pasture	yearlong	scarce
urban	yearlong	scarce

HABITAT Douglas-fir - lodgepole pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1															
REPRODUCTION	1	1	1	1	1															
HIDING COVER																		h		m

Dusky Shrew

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	m	m		1	1	1	1	1		1								
REPRODUCTION	1	1	m	m		1	1	1	1	1		1								
HIDING COVER																		h		

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h		m	m	1	m	1	1	1	1	1	1	1	1			
REPRODUCTION	m	m	h	h		m	m	1	m	1	1	1	1	1	1	i	1			
HIDING COVER																		h		

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1		m	m		m	m		1	1		1	1		1	1				
REPRODUCTION	1		m	m		m	m		1	1		1	1		1	1				
HIDING COVER																		h		

Dusky Shrew

HABITAT trembling aspen																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	l	m	m	l	l	m	l	l	m	l	l						
REPRODUCTION	l	l	l	m	m	l	l	m	l	l	m	l	l						
HIDING COVER																	h		

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	m	h	h	m	m	m	h	h	h	h	h	h			
REPRODUCTION	l	l	m	h	m	h	h	m	m	m	h	h	h	h	h	h			
HIDING COVER																	h		

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	l																		
HIDING COVER																	h		

Dusky Shrew

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h															
REPRODUCTION	m	h	h	h															
HIDING COVER																	h		

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	m																		
HIDING COVER																	h		

SOUTHERN INTERIOR ECOPROVINCE

Water Shrew

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
spruce riparian	yearlong	common
black cottonwood riparian	yearlong	common
shrub wetland	yearlong	scarce
sedge wetland	yearlong	scarce
marsh	yearlong	common
shallow open water	yearlong	scarce
lake	yearlong	common
fast perennial stream	yearlong	common
slow perennial stream	yearlong	common

HABITAT spruce riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m			
REPRODUCTION	m		m	h	h	h	h	h	h	h	h	h	h	h	h	h	h			
HIDING COVER																		h		h

HABITAT black cottonwood riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m			
REPRODUCTION	m		m	h	h	h	h	h	h	h	h	h	h	h	h	h	h			
HIDING COVER																		h		

Water Shrew

HABITAT marsh																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																			
REPRODUCTION																				
HIDING COVER																		h		

HABITAT lake								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING					m	m		
REPRODUCTION								

HABITAT fast perennial stream								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING				h	h			
REPRODUCTION								

HABITAT slow perennial stream								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING				l	m	m		
REPRODUCTION								

SOUTHERN INTERIOR ECOPROVINCE

Little Brown Myotis

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	summer	scarce
Douglas-fir - ponderosa pine	summer	scarce
Douglas-fir - lodgepole pine	summer	scarce
Engelmann spruce - subalpine fir dry forested	summer	scarce
spruce riparian	summer	abundant
trembling aspen copse	summer	common
black cottonwood riparian	summer	abundant
shrub wetland	summer	abundant
sedge wetland	summer	common
marsh	summer	abundant
shallow open water	summer	abundant
lake	summer	abundant
fast perennial stream	summer	common
slow perennial stream	summer	common
orchard/vineyard	summer	common
urban	summer	common
man-made elements	summer	common
cliffs	summer	scarce
caves	summer	common

HABITAT spruce riparian

SEASON OF USE summer

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		m	m	m	m	l	l	l	l	l	l	l	l	l	l	l			
REPRODUCTION											l	m	h	h	h	h	h		h	
ROOSTING COVER											l	m	h	h	h	h			h	

Little Brown Myotis

HABITAT trembling aspen copse																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	l	l	l	l	l	l	l	l	m	l	l						
REPRODUCTION											m	l	l					h	
ROOSTING COVER											m	l	l					h	

HABITAT black cottonwood riparian																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	m	m	m	l	l	l	l	l	l	l	l	l			
REPRODUCTION											h	h	h	h	h	h		h	
ROOSTING COVER											h	h	h	h	h	h		h	

HABITAT shrub wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m															
REPRODUCTION																			

Little Brown Myotis

HABITAT fast perennial stream								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		m	m	m	m		m	
REPRODUCTION								

HABITAT slow perennial stream								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		m	m	m	m	m	m	
REPRODUCTION								

HABITAT orchard/vineyard											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			m	m	m	m					
REPRODUCTION											

HABITAT urban											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING							m				
REPRODUCTION							h				
ROOSTING COVER							h				

Little Brown Myotis

HABITAT man-made elements											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION									h		
ROOSTING COVER									h		

HABITAT caves											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION											
ROOSTING COVER											h

SOUTHERN INTERIOR ECOPROVINCE

Yuma Myotis

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
black cottonwood riparian	summer	abundant
shrub wetland	summer	common
sedge wetland	summer	common
marsh	summer	common
shallow open water	summer	common
lake	summer	common
fast perennial stream	summer	abundant
slow perennial stream	summer	abundant
man-made elements	summer	common

HABITAT black cottonwood riparian

SEASON OF USE summer

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	l			l			l			l						
REPRODUCTION											m	m	m	m	m	m		m		
ROOSTING COVER											h	h	h	h	h	h		h		

Yuma Myotis

HABITAT shrub wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	1	1	1															
REPRODUCTION																			

HABITAT sedge wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT marsh																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

Yuma Myotis

HABITAT shallow open water								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING	m							
REPRODUCTION								

HABITAT lake								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		m	m	m	m	m	l	
REPRODUCTION								

HABITAT fast perennial stream								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		h	h	h	h		h	
REPRODUCTION								

HABITAT slow perennial stream								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		h	h	h	h	h	h	
REPRODUCTION								

HABITAT man-made elements												
SEASON OF USE summer												
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION									h		
ROOSTING COVER									h		

SOUTHERN INTERIOR ECOPROVINCE

Long-eared Myotis

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	summer	scarce
Douglas-fir - ponderosa pine	summer	common
Douglas-fir - lodgepole pine	summer	common
Engelmann spruce - subalpine fir dry forested	summer	scarce
spruce riparian	summer	scarce
Engelmann spruce - subalpine fir dry parkland	summer	scarce
talus/rock	summer	common
shrub wetland	summer	common
sedge wetland	summer	common
shallow open water	summer	common
man-made elements	summer	common
cliffs	summer	common
caves	summer	common

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING								l	l	m	h	h	h	h	h	h			
REPRODUCTION											m	l	l	h	h	h		h	
ROOSTING COVER											m	l	l	h	h	h		h	

Long-eared Myotis

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING								l	l	m	h	h	h	h	h	h			
REPRODUCTION											m	l	l	h	h	h		h	
ROOSTING COVER											m	l	l	h	h	h		h	

HABITAT talus/rock																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	l	l															
REPRODUCTION	m	m	m	m															
ROOSTING COVER	m	m	m	m															

HABITAT shrub wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m															
REPRODUCTION																			

Long-eared Myotis

HABITAT sedge wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT shallow open water								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING	m							
REPRODUCTION								

HABITAT man-made elements												
SEASON OF USE summer												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION									m		
ROOSTING COVER									m		

Long-eared Myotis

HABITAT cliffs											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION										h	
ROOSTING COVER										h	

HABITAT caves											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION											h
ROOSTING COVER											h

SOUTHERN INTERIOR ECOPROVINCE

Fringed Myotis

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	summer	common
Douglas-fir - ponderosa pine	summer	common
big sage shrub/grassland	summer	common
orchard/vineyard	summer	common
man-made elements	summer	common
cliffs	summer	common
caves	summer	common

HABITAT ponderosa pine

SEASON OF USE summer

LIFE REQUISITES	GRASS/BARE	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	h	h	h	h	h		h	h		h	h				
REPRODUCTION																			

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE summer

LIFE REQUISITES	GRASS/BARE	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	l	l	m	l	l	m	l	l	m	m	m			
REPRODUCTION																			

Fringed Myotis

HABITAT big sage shrub/grassland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h		h	h	h															
REPRODUCTION																				

HABITAT orchard/vineyard												
SEASON OF USE summer												
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			1	1	1	1					
REPRODUCTION											

HABITAT man-made elements												
SEASON OF USE summer												
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION									h		
COVER									h		

Fringed Myotis

HABITAT cliffs											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION										h	
ROOSTING COVER										h	

HABITAT caves											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION											l
ROOSTING COVER											h

SOUTHERN INTERIOR ECOPROVINCE

Long-legged Myotis

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - lodgepole pine	yearlong	scarce
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
urban	summer	scarce
cliffs	yearlong	rare
caves	winter	scarce
man-made elements	yearlong	rare

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1							1	1	1	1	m	1	m	m	1			
REPRODUCTION														m	m	m		1	
ROOSTING														m	m	m		1	

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1							1			1	1	1	1	1	1			
REPRODUCTION														1	1	1		1	
ROOSTING														1	1	1		1	

Long-legged Myotis

HABITAT urban											
SEASON OF USE summer											
LIFE REQUISITES	C.F.L.D.	PAST.	ORCHARD				URBAN	BARR.	M.M.E.L.E.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING							m				
REPRODUCTION											

HABITAT caves											
SEASON OF USE winter											
LIFE REQUISITES	C.F.L.D.	PAST.	ORCHARD				URBAN	BARR.	M.M.E.L.E.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION											
HIBERNATION											m

SOUTHERN INTERIOR ECOPROVINCE

California Myotis

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	summer	scarce
Douglas-fir - ponderosa pine	summer	scarce
trembling aspen copse	summer	scarce
black cottonwood riparian	summer	common
big sage shrub/grassland	summer	scarce
bunchgrass grassland	summer	scarce
sedge wetland	summer	scarce
marsh	summer	common
shallow open water	summer	common
lake	summer	common
fast perennial stream	summer	common
slow perennial stream	summer	common
cultivated field	summer	scarce
orchard/vineyard	summer	scarce
pasture	summer	scarce
urban	summer	scarce
man-made elements	summer	common
cliffs	summer	common
caves	summer	common

HABITAT black cottonwood riparian

SEASON OF USE summer

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	m	m	l	m	m	l	m	l	l	m	l	l				
REPRODUCTION															m	m	m		h	
ROOSTING COVER															m	m	m		h	

California Myotis

HABITAT marsh																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																			
REPRODUCTION																				

HABITAT shallow open water									
SEASON OF USE summer									
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING	h							
REPRODUCTION								

HABITAT lake								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		h	h	h	h	h	1	1
REPRODUCTION								

HABITAT fast perennial stream								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		m	m	m	m			
REPRODUCTION								

HABITAT slow perennial stream								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		h	h	h	h	h	1	1
REPRODUCTION								

California Myotis

HABITAT man-made elements											
SEASON OF USE summer											
LIFE REQUISITES	C. F L D.	P A S T.	ORCHARD				U R B A N	B A R R.	M. M. E L E.	C L I F F	C A V E
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION									h		
ROOSTING COVER									h		

HABITAT cliffs											
SEASON OF USE summer											
LIFE REQUISITES	C. F L D.	P A S T.	ORCHARD				U R B A N	B A R R.	M. M. E L E.	C L I F F	C A V E
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION										m	
ROOSTING COVER										m	

HABITAT caves											
SEASON OF USE summer											
LIFE REQUISITES	C. F L D.	P A S T.	ORCHARD				U R B A N	B A R R.	M. M. E L E.	C L I F F	C A V E
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION											l
ROOSTING COVER											h

SOUTHERN INTERIOR ECOPROVINCE

Western Small-footed Myotis

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	summer	common
Douglas-fir - ponderosa pine	summer	scarce
big sage shrub/grassland	summer	common
talus/rock	summer	common
man-made elements	summer	scarce
cliffs	summer	common
caves	summer	scarce

HABITAT ponderosa pine

SEASON OF USE summer

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	l		m	l		m	l		m	l				
REPRODUCTION																			

HABITAT big sage shrub/grassland

SEASON OF USE summer

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m															
REPRODUCTION																			

Western Small-footed Myotis

HABITAT talus/rock																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		
ROOSTING COVER	h																		

HABITAT cliffs											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING										h	
REPRODUCTION										h	
ROOSTING COVER										h	

SOUTHERN INTERIOR ECOPROVINCE

Silver-haired Bat

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	common
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	scarce
Engelmann spruce - subalpine fir dry forested	summer	scarce
spruce riparian	summer	common
trembling aspen copse	summer	scarce
black cottonwood riparian	summer	abundant
shrub wetland	summer	common
sedge wetland	summer	common
marsh	summer	common
shallow open water	summer	abundant
lake	summer	abundant
fast perennial stream	summer	common
slow perennial stream	summer	abundant
cultivated field	summer	scarce
orchard/vineyard	summer	scarce
pasture	summer	scarce
urban	summer	scarce
man-made elements	yearlong	scarce
cliffs	yearlong	scarce
caves	yearlong	scarce

Silver-haired Bat

HABITAT ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1	1		1	1		1	1		1	1				
REPRODUCTION											1	1		h	h			h	
ROOSTING COVER											1	1		h	h			h	

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1	1		1	1		1	1	1	1	1	1			
REPRODUCTION											1	1	m	h	h	h		h	
ROOSTING COVER											1	1	m	h	h	h		h	

HABITAT spruce riparian																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
REPRODUCTION											1	1	m	h	h	h		h	h
ROOSTING COVER											1	1	m	h	h	h		h	h

Silver-haired Bat

HABITAT black cottonwood riparian																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h			
REPRODUCTION											m	m	m	h	h	h		h	
ROOSTING COVER											m	m	m	h	h	h		h	

HABITAT shrub wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m															
REPRODUCTION																			

HABITAT sedge wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l																		
REPRODUCTION																			

Silver-haired Bat

HABITAT marsh																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION																			

HABITAT shallow open water									
SEASON OF USE summer									
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING	h							
REPRODUCTION								

HABITAT lake								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		h	h	h	h	h	1	1
REPRODUCTION								

HABITAT fast perennial stream								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		h	h	h	h		1	1
REPRODUCTION								

HABITAT slow perennial stream								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		h	h	h	h	h	m	m
REPRODUCTION								

SOUTHERN INTERIOR ECOPROVINCE

Big Brown Bat

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
spruce riparian	yearlong	common
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	abundant
big sage/ shrub/grassland	summer	scarce
talus/rock	summer	scarce
bunchgrass grassland	summer	scarce
shrub wetland	summer	common
sedge wetland	summer	scarce
marsh	summer	abundant
shallow open water	summer	abundant
lake	summer	abundant
fast perennial stream	summer	abundant
slow perennial stream	summer	abundant
cultivated field	summer	common
orchard/vineyard	yearlong	common
pasture	summer	common
urban	yearlong	abundant
cliffs	yearlong	common
caves	yearlong	common
man-made elements	yearlong	abundant

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
REPRODUCTION												1	1	1	m	m	m		h	
ROOSTING												1	1	1	m	m	m		h	

Big Brown Bat

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/BARS	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			1
REPRODUCTION												1	1	1	m	m	m		h	
ROOSTING												1	1	1	m	m	m		h	

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/BARS	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m			
REPRODUCTION												1	1	1	m	m	m		h	
ROOSTING												1	1	1	m	m	m		h	

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/BARS	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		1	1	1	1	1	1	1	1	1	1	1	1	1						
REPRODUCTION												1	1	1					m	
ROOSTING												1	1	1					m	

Big Brown Bat

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h		h	h	h	h	h	h	h	h	h	h	h	h	h	h	h			
REPRODUCTION												m	m	m	h	h	h		h	
ROOSTING												m	m	m	h	h	h		h	

HABITAT shrub wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		m	m	m															
REPRODUCTION																				

HABITAT marsh																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																			
REPRODUCTION																				

Big Brown Bat

HABITAT orchard/vineyard											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			1	1	1	1					
REPRODUCTION											

HABITAT pasture											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING		1									
REPRODUCTION											

HABITAT urban											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING							m				
REPRODUCTION											

Big Brown Bat

HABITAT cliffs											
SEASON OF USE yearlong											
LIFE REQUISITES	C.F.L.D.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION											
ROOSTING										1	

HABITAT caves											
SEASON OF USE yearlong											
LIFE REQUISITES	C.F.L.D.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION											
ROOSTING/ HIBERNATION											1

HABITAT man-made elements											
SEASON OF USE yearlong											
LIFE REQUISITES	C.F.L.D.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION									h		
ROOSTING/ HIBERNATION									h		

SOUTHERN INTERIOR ECOPROVINCE

Hoary Bat

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	summer	common
Douglas-fir - ponderosa pine	summer	common
black cottonwood riparian	summer	common
big sage shrub/grassland	summer	scarce
marsh	summer	scarce
shallow open water	summer	scarce
lake	summer	scarce
fast perennial stream	summer	scarce
slow perennial stream	summer	scarce
cultivated field	summer	scarce
orchard/vineyard	summer	common
pasture	summer	scarce
urban	summer	scarce

HABITAT ponderosa pine

SEASON OF USE summer

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1	1		1	1		1	m		1	m					
REPRODUCTION																				
ROOSTING COVER												1			1					

Hoary Bat

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	m	m	m	m	m	h	h	h	h	h	h			
REPRODUCTION									l	m	l	m	h	m	h	h			
ROOSTING COVER									l	m	l	m	h	m	h	h			

HABITAT black cottonwood riparian																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	m	m	m	m	m	h	h	h	h	h	h			
REPRODUCTION									l	m	m	m	h	m	h	h			
ROOSTING COVER									l	m	m	m	h	m	h	h			

HABITAT orchard/vineyard												
SEASON OF USE summer												
LIFE REQUISITES	C.F.L.D.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			m	m	m	m					
REPRODUCTION					m	m					
ROOSTING COVER					m	m					

SOUTHERN INTERIOR ECOPROVINCE

Spotted Bat

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	summer	scarce
Douglas-fir - ponderosa pine	summer	scarce
big sage shrub/grassland	summer	scarce
cliffs	summer	scarce

HABITAT ponderosa pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	m	l		m	l		m	l		m	l				
REPRODUCTION																			

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	h			m			m			m					
REPRODUCTION																			

Spotted Bat

HABITAT big sage shrub/grassland																			
SEASON OF USE summer																			
LIFE REQUISITES	GRASS/FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h															
REPRODUCTION																			

HABITAT cliffs												
SEASON OF USE summer												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING												
REPRODUCTION										h	
ROOSTING COVER										h	

SOUTHERN INTERIOR ECOPROVINCE

Pallid Bat

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	summer	scarce
Douglas-fir - ponderosa pine	summer	scarce
black cottonwood riparian	summer	scarce
big sage shrub/grassland	summer	scarce
man-made elements	summer	scarce
cliffs	summer	scarce
caves	yearlong	scarce

HABITAT ponderosa pine

SEASON OF USE summer

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	1			1			1			1					
REPRODUCTION																			

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE summer

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	1			1			1			1					
REPRODUCTION																			

Pallid Bat

HABITAT black cottonwood riparian																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	l	l			l	l	l	l	l	l	l	l	l			
REPRODUCTION																			

HABITAT big sage shrub/grassland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h															
REPRODUCTION																			

HABITAT man-made elements												
SEASON OF USE summer												
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING												
REPRODUCTION												
ROOSTING COVER									h			

Pallid Bat

HABITAT cliffs											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION											
ROOSTING COVER										h	

HABITAT caves											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION											
ROOSTING COVER											m
HIBERNATING											h

SOUTHERN INTERIOR ECOPROVINCE

Townsend's Big-eared Bat

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	summer	common
Douglas-fir - ponderosa pine	summer	common
big sage shrub/grassland	summer	common
man-made elements	summer	scarce
cliffs	summer	scarce
caves	yearlong	common

HABITAT ponderosa pine

SEASON OF USE summer

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	m	m	m	m		m	m		m	m		m	m					
REPRODUCTION																				

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE summer

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	m	m	m	m	1	m	m	1	m	m	1	m	m	1				
REPRODUCTION																				

Townsend's Big-eared Bat

HABITAT big sage shrub/grassland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	m	m															
REPRODUCTION																				

HABITAT caves											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION											h
ROOSTING COVER											h

SOUTHERN INTERIOR ECOPROVINCE

Pika

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Engelmann spruce - subalpine fir dry parkland	yearlong	abundant
talus/rock	yearlong	abundant
dry alpine	yearlong	scarce
alpine meadow/subalpine meadow	yearlong	common

HABITAT Engelmann spruce - subalpine fir dry parkland

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	m	l		l	l											
REPRODUCTION																			

HABITAT talus/rock

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m																
REPRODUCTION	h	h	h																
ESCAPE COVER	h	h	h																

Pika

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION																			

SOUTHERN INTERIOR ECOPROVINCE

Nuttall's Cottontail

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
trembling aspen copse	yearlong	scarce
black cottonwood riparian	yearlong	scarce
big sage shrub/grassland	yearlong	scarce
cultivated field	yearlong	scarce
orchard/vineyard	yearlong	rare

HABITAT trembling aspen copse

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	h	m	m	m	m	l	m	m	l						
REPRODUCTION		l	m	h	m	l	l	m	l	l	m	l	l						

HABITAT black cottonwood riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	h	h	l	m	m	m	m	m	m	m	l						
REPRODUCTION		l	m	h		l	m	l	m	m	m	l	l						

Nuttall's Cottontail

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h															
REPRODUCTION		l	m	h															

HABITAT cultivated field												
SEASON OF USE yearlong												
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	m										
REPRODUCTION											

SOUTHERN INTERIOR ECOPROVINCE

Snowshoe Hare

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	scarce
Douglas-fir - lodgepole pine	yearlong	abundant
Engelmann spruce - subalpine fir dry forested	yearlong	abundant
spruce riparian	yearlong	common
trembling aspen copse	yearlong	scarce
black cottonwood riparian	yearlong	common
shrub wetland	yearlong	common

HABITAT Douglas-fir - lodgepole pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	l	l	h	m	l	h	m	l	m	l	l			m
REPRODUCTION		l	l	l	m	l	l	h	m	l	h	m	l	m	l	l			
HIDING COVER																	m		

HABITAT Engelmann spruce - subalpine fir dry forested

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	h	m	l	l	h	m	l	h	m	l	m	l	l			
REPRODUCTION		l	l	m	m	l	l	h	m	l	h	m	l	m	l	l			
HIDING COVER																	m		

Snowshoe Hare

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	h	m	m	l	m	m	l	m	m	l	m	l	l			
REPRODUCTION		l	l	l	m	m	l	m	m	l	m	m	l	m	l	l			
HIDING COVER																	m		

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	h	h	m	h	m	l	h	m	m	m	l	l			
REPRODUCTION																			

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		l	m	m															
REPRODUCTION																			

SOUTHERN INTERIOR ECOPROVINCE

White-tailed Jackrabbit

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
big sage shrub/grassland	yearlong	scarce
pasture	yearlong	scarce

HABITAT ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	m	h													
REPRODUCTION		l	h	h	l	h													

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h															
REPRODUCTION		l	h	h															

White-tailed Jackrabbit.

HABITAT pasture											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING		m									
REPRODUCTION											

SOUTHERN INTERIOR ECOPROVINCE

Yellow-pine Chipmunk

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	abundant
Douglas-fir - ponderosa pine	yearlong	abundant
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
trembling aspen copse	yearlong	scarce

HABITAT ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	m	m	m	m		m	m		h	m							
REPRODUCTION	l	l	l	l	l	l		m	m		h	m							
HIDING COVER																	h	l	

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	m	m	m	m		h	m	l	h	m	l	h	m	l			
REPRODUCTION	l	l	l	l	l	l		h	m	l	h	m	l	h	m	l			
HIDING COVER																	h	l	

Yellow-pine Chipmunk

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		l	l			l			m	l		m			m	l				
REPRODUCTION		l	l			l			m	l		m			m	l				
HIDING COVER																		h	l	

SOUTHERN INTERIOR ECOPROVINCE

Yellow-bellied Marmot

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	common
Douglas-fir - ponderosa pine	yearlong	scarce
trembling aspen copse	yearlong	scarce
big sage shrub/grassland	yearlong	common
talus/rock	yearlong	scarce
bunchgrass grassland	yearlong	common
sedge wetland	yearlong	scarce
cultivated fields	yearlong	scarce
pasture	yearlong	common

HABITAT ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h		m	l	l	m	l		m	l		m	l							
REPRODUCTION	h		m	l	l	m	l		m	l		m	l							
HIDING COVER																		h		

Yellow-bellied Marmot

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	m	l	l															
REPRODUCTION	h	m	l	l															

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

HABITAT pasture												
SEASON OF USE yearlong												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING		h									
REPRODUCTION		h									

SOUTHERN INTERIOR ECOPROVINCE

Hoary Marmot

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
talus/rock	yearlong	common
dry alpine	yearlong	common
Engelmann spruce - subalpine fir dry parkland	yearlong	common
alpine meadow/subalpine meadow	summer	scarce

HABITAT dry alpine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/BS	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	m																		
HIBERNATION	m																		

HABITAT Engelmann spruce - subalpine fir dry parkland

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/BS	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h						m			1								
REPRODUCTION	h	h						m			1								
HIBERNATION	h	h																	

Hoary Marmot

HABITAT talus/rock																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING																			
REPRODUCTION	h																		
HIBERNATION	m																		

SOUTHERN INTERIOR ECOPROVINCE

Columbian Ground Squirrel

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	scarce
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
trembling aspen copse	yearlong	common
big sage shrub/grassland	yearlong	common
bunchgrass grassland	yearlong	abundant
dry alpine	yearlong	common
alpine meadow/subalpine meadow	yearlong	common
cultivated field	yearlong	abundant
orchard/vineyard	yearlong	common
pasture	yearlong	abundant

HABITAT ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	1			m	1		m	1		m	1							
REPRODUCTION	m	m	1			m	1		m	1		m	1							

Columbian Ground Squirrel

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/BARS	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	l		l			l											
REPRODUCTION	m	m	l		l			l									m		

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/BARS	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	m	l	l	m	l		m	l	l	m	l	l						
REPRODUCTION	h	m	l	l	m	l		m	l	l	m	l	l						
COVER																	m		

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/BARS	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	l	l															
REPRODUCTION	m	m	l	l															

Columbian Ground Squirrel

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

HABITAT dry alpine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	m																		

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION																			

Columbian Ground Squirrel

HABITAT cultivated field											
SEASON OF USE yearlong											
LIFE REQUISITES	C. F L D.	P A S T.	ORCHARD				U R B A N	B A R R.	M. M. E L E.	C L I F F	C A V E
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	m										
REPRODUCTION	m										

HABITAT orchard/vineyard											
SEASON OF USE yearlong											
LIFE REQUISITES	C. F L D.	P A S T.	ORCHARD				U R B A N	B A R R.	M. M. E L E.	C L I F F	C A V E
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			1	1	1	1					
REPRODUCTION			1	1	1	1					

HABITAT pasture											
SEASON OF USE yearlong											
LIFE REQUISITES	C. F L D.	P A S T.	ORCHARD				U R B A N	B A R R.	M. M. E L E.	C L I F F	C A V E
			YOUNG		MATURE						
			M	D	M	D					
FEEDING		h									
REPRODUCTION		h									

SOUTHERN INTERIOR ECOPROVINCE

Red Squirrel

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	common
Douglas-fir - ponderosa pine	yearlong	abundant
Douglas-fir - lodgepole pine	yearlong	abundant
Engelmann spruce - subalpine fir dry forested	yearlong	abundant
spruce riparian	yearlong	scarce
Engelmann spruce - subalpine fir dry parkland	yearlong	scarce
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	common

HABITAT ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING						l		l	m		m	m		m	m				
REPRODUCTION											m	m		m	m			h	
HIDING COVER																	h		

Red Squirrel

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING						l	l	l	m	m	h	h	h	h	h	h			
REPRODUCTION										l	h	h	h	h	h	h		h	
HIDING COVER																	h		

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING					l	l	l	m	m	h	h	h	h	h	h	h			m
REPRODUCTION										l	h	h	h	h	h	h		h	
HIDING COVER																	h		

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING					l	l	l	m	m	m	h	h	h	h	h	h			
REPRODUCTION										l	h	h	h	h	h	h		h	
HIDING COVER																	h		

Red Squirrel

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING						l	l	l	l	m	h	h	h	h	h	h	h			
REPRODUCTION										l	m	h	h	h	h	h	h			
HIDING COVER																		h		

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING										l	l	m	m	m	m	m	m			
REPRODUCTION												m	m	m	m	m	m		h	
HIDING COVER																		h		

SOUTHERN INTERIOR ECOPROVINCE

Northern Flying Squirrel

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	abundant
Douglas-fir - lodgepole pine	yearlong	abundant
Engelmann spruce - subalpine fir dry forested	yearlong	abundant
spruce riparian	yearlong	abundant
trembling aspen copse	yearlong	scarce
black cottonwood riparian	yearlong	abundant

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING									l	l	l	m	m	l	m	m			
REPRODUCTION									l	l	l	m	m	l	m	m		h	

HABITAT Douglas-fir - lodgepole pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING							l	l	m	m	h	h	h	m	h	h			
REPRODUCTION								l	m	m	m	h	h	m	h	h		h	h

Northern Flying Squirrel

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING							l	l	m	m	m	h	h	m	h	h			
REPRODUCTION								l	m	m	m	h	h	m	h	h		h	h

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING							l	l	m	m	m	h	h	m	h	h			
REPRODUCTION								l	m	m	m	h	h	m	h	h		h	h

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING							l	l	m	m	h	h	m	m	h	h			
REPRODUCTION								l	m	m	h	h	m	m	h	h		h	

SOUTHERN INTERIOR ECOPROVINCE

Northern Pocket Gopher

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	common
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	common
spruce riparian	yearlong	common
Engelmann spruce - subalpine fir dry parkland	yearlong	common
big sage shrub/grassland	yearlong	common
bunchgrass grassland	yearlong	abundant
dry alpine	yearlong	common
alpine meadow/subalpine meadow	yearlong	common
sedge wetland	yearlong	scarce
cultivated field	yearlong	common
orchard/vineyard	yearlong	abundant
pasture	yearlong	common
urban	yearlong	scarce

HABITAT ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	l	l	l															
REPRODUCTION	m	m	l	l	l															

Northern Pocket Gopher

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	1	1	1														
REPRODUCTION	m	m	1	1	1														

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	1	1	1														
REPRODUCTION	m	m	1	1	1														

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	m	m			1			1			1					
REPRODUCTION	h	h	m	m	m			1			1			1					

Northern Pocket Gopher

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	1	1	1															
REPRODUCTION	m	m	1	1	1															

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	1			1														
REPRODUCTION	m	m	1			1														

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1																	
REPRODUCTION	1	1	1																	

Northern Pocket Gopher

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

HABITAT dry alpine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l																		
REPRODUCTION	l																		

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	m																		

Northern Pocket Gopher

HABITAT cultivated field												
SEASON OF USE yearlong												
LIFE REQUISITES	C. F L D.	P A S T.	ORCHARD				U R B A N	B A R R.	M. M. E L E.	C L I F F	C A V E
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	h										
REPRODUCTION	m										

HABITAT orchard/vineyard												
SEASON OF USE yearlong												
LIFE REQUISITES	C. F L D.	P A S T.	ORCHARD				U R B A N	B A R R.	M. M. E L E.	C L I F F	C A V E
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			h	h	h	h					
REPRODUCTION			h	h	h	h					

HABITAT pasture												
SEASON OF USE yearlong												
LIFE REQUISITES	C. F L D.	P A S T.	ORCHARD				U R B A N	B A R R.	M. M. E L E.	C L I F F	C A V E
			YOUNG		MATURE						
			M	D	M	D					
FEEDING		m									
REPRODUCTION		m									

SOUTHERN INTERIOR ECOPROVINCE

Great Basin Pocket Mouse

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
big sage shrub/grassland	yearlong	scarce
bunchgrass grassland	yearlong	scarce

HABITAT ponderosa pine																				
SEASON OF USE yearling																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l	l														
REPRODUCTION	h	h	m	l	l														

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l															
REPRODUCTION	h	h	m	l															

Great Basin Pocket Mouse

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	m																		

SOUTHERN INTERIOR ECOPROVINCE

Beaver

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
slow perennial stream	yearlong	common
fast perennial stream	yearlong	common
black cottonwood riparian	yearlong	common
lake	yearlong	common
shallow open water	yearlong	scarce
marsh	yearlong	common
shrub wetland	yearlong	scarce

HABITAT lake								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING								
REPRODUCTION			l					
ESCAPE COVER				h	h	h	m	m

HABITAT slow perennial stream								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING								
REPRODUCTION			m		h	h	l	
ESCAPE COVER				h	h	h	m	m

HABITAT fast perennial stream								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING								
REPRODUCTION			m	l	m	m		
ESCAPE COVER				h	h	h	m	m

Beaver

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		l	m	m	h	h	h	h	h	h	m	m	m	m	m	m				
REPRODUCTION																				

HABITAT marsh																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																			
REPRODUCTION	l																			

SOUTHERN INTERIOR ECOPROVINCE

Western Harvest Mouse

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
trembling aspen copse	yearlong	scarce
black cottonwood riparian	yearlong	scarce
big sage shrub/grassland	yearlong	scarce
sedge wetland	yearlong	scarce
cultivated field	yearlong	scarce
orchard/vineyard	yearlong	scarce

HABITAT ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		m	l																
REPRODUCTION	l		m	l																

HABITAT trembling aspen copse

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		m	l																
REPRODUCTION	m		m	l																

Western Harvest Mouse

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	l																
REPRODUCTION	m	m	l																

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l															
REPRODUCTION	m	h	h	m															

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	m																		

Western Harvest Mouse

HABITAT cultivated field											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	1										
REPRODUCTION	1										

HABITAT orchard/vineyard											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			1	1	1	1					
REPRODUCTION			1	1	1	1					

SOUTHERN INTERIOR ECOPROVINCE

Deer Mouse

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	abundant
Douglas-fir - ponderosa pine	yearlong	abundant
Douglas-fir - lodgepole pine	yearlong	abundant
Engelmann spruce - subalpine fir dry forested	yearlong	common
spruce riparian	yearlong	common
trembling aspen copse	yearlong	abundant
black cottonwood riparian	yearlong	abundant
big sage shrub/grassland	yearlong	common
bunchgrass grassland	yearlong	common
shrub wetland	yearlong	common
sedge wetland	yearlong	common
cultivated field	yearlong	common
orchard/vineyard	yearlong	abundant
pasture	yearlong	abundant
urban	yearlong	common

HABITAT ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	h	m		m	l		m	l		m	l				
REPRODUCTION	l	m	h	h	h	m		m	l		m	l		m	l				
HIDING COVER																	h		

Deer Mouse

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	h	m	l	m	l	l	m	m	l	m	m	m			
REPRODUCTION	l	m	h	h	h	m	l	m	l	l	m	m	l	m	m	m			
HIDING COVER																	h		

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	h	m	m	m	m	m	h	m	l	h	h	m			
REPRODUCTION	l	m	h	h	h	m	m	m	m	m	h	m	l	h	h	m			
HIDING COVER																	h		

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	m	m	l	l	l	l	l	m	l	l	m	m	l			
REPRODUCTION	l	l	m	m	m	l	l	l	l	l	m	l	l	m	m	l			
HIDING COVER																	h		

Deer Mouse

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	m	m	l	l	l	l	l	m	l	l	m	m	l			
REPRODUCTION	l	l	m	m	m	l	l	l	l	l	m	l	l	m	m	l			
HIDING COVER																	h		

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	m	h	h	m	l	m	l	l	l	l	l						
REPRODUCTION	l	l	m	h	h	m	l	m	l	l	l	l	l						
HIDING COVER																	h		

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	h	h	h	h	m	m	m	m	h	h	h	h	h	h			
REPRODUCTION	l	m	h	h	h	h	m	m	m	m	h	h	h	h	h	h			
HIDING COVER																	h		

Deer Mouse

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	m															
REPRODUCTION		l	m	m															

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	m																		

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	m	m															
REPRODUCTION	l	m	m	m															

Deer Mouse

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1																			
REPRODUCTION	1																			

HABITAT cultivated field											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	1										
REPRODUCTION	1										

HABITAT orchard/vineyard											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			m	m	m	m					
REPRODUCTION			m	m	m	m					

Deer Mouse

HABITAT pasture											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING		m									
REPRODUCTION		m									

HABITAT urban											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING							1				
REPRODUCTION							1				

SOUTHERN INTERIOR ECOPROVINCE

Bushy-tailed Woodrat

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
spruce riparian	yearlong	scarce
Engelmann spruce - subalpine fir dry parkland	yearlong	scarce
trembling aspen copse	yearlong	scarce
talus/rock	yearlong	abundant
bunchgrass grassland	yearlong	scarce
dry alpine	yearlong	scarce
man-made elements	yearlong	common
cliffs	yearlong	abundant

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	m	m	m	1	1	1			1			1					
REPRODUCTION	1	1	1	m	m	m	1	1	1			1			1			m		
HIDING COVER																		m		

Bushy-tailed Woodrat

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	m	m	m	1	1	1			1			1					
REPRODUCTION	1	1	m	m	m	1	1	1			1			1			m		
HIDING COVER																	m		

HABITAT talus/rock																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	h	h																
REPRODUCTION	m	h	h																

HABITAT man-made elements												
SEASON OF USE yearlong												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION									h		

Bushy-tailed Woodrat

HABITAT cliffs											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING										l	
REPRODUCTION										h	

SOUTHERN INTERIOR ECOPROVINCE

Southern Red-backed Vole

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - ponderosa pine	yearlong	abundant
Douglas-fir - lodgepole pine	yearlong	abundant
Engelmann spruce - subalpine fir dry forested	yearlong	abundant
spruce riparian	yearlong	abundant
Engelmann spruce - subalpine fir dry parkland	yearlong	abundant
talus/rock	yearlong	common
dry alpine	yearlong	common
shrub wetland	yearlong	scarce
sedge wetland	yearlong	scarce

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING							l	l	m	m	m	h	h	m	h	h			
REPRODUCTION								l	m	m	m	h	h	m	h	h	h	m	

Southern Red-backed Vole

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING								l	m	m	h	h	h	h	h	h			
REPRODUCTION								l	m	m	h	h	h	h	h	h	h	m	

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING							l	m	m	m	h	h	h	h	h	h			
REPRODUCTION								m	m	m	h	h	h	h	h	h	h	m	

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING							l	m	m	m	h	h	h	h	h	h			
REPRODUCTION								m	m	m	h	h	h	h	h	h	h	m	

Southern Red-backed Vole

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING							1		m	m		m	m		m	m				
REPRODUCTION							1		m	m		m	m		m	m		h	m	

HABITAT talus/rock																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING			1	1																
REPRODUCTION			1	1																

HABITAT dry alpine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1																			
REPRODUCTION	1																			

SOUTHERN INTERIOR ECOPROVINCE

Heather Vole

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - lodgepole pine	yearlong	scarce
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
spruce riparian	yearlong	scarce
Engelmann spruce - subalpine fir dry parkland	yearlong	scarce
dry alpine	yearlong	scarce
alpine meadow/subalpine meadow	yearlong	scarce

HABITAT Douglas-fir - lodgepole pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l	l							l	l	l	l	l	l			
REPRODUCTION	h	h	m	l	l							l	l	l	l	l	l			

Heather Vole

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB/SHRUB/SEEDLING				POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	1	1							1	1	1	1	1	1			
REPRODUCTION	m	m	1	1							1	1	1	1	1	1			

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB/SHRUB/SEEDLING				POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	1	1							1	1	1	1	1	1		1	
REPRODUCTION	m	m	1	1							1	1	1	1	1	1		1	

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB/SHRUB/SEEDLING				POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	1		m	1		1			1	1		1	1				
REPRODUCTION	m	m	1		m	1		1			1	1		1	1				

Heather Vole

HABITAT dry alpine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

SOUTHERN INTERIOR ECOPROVINCE

Meadow Vole

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	common
spruce riparian	yearlong	abundant
Engelmann spruce - subalpine fir dry parkland	yearlong	common
black cottonwood riparian	yearlong	abundant
big sage shrub/grassland	yearlong	scarce
bunchgrass grassland	yearlong	abundant
alpine meadow/subalpine meadow	yearlong	common
shrub wetland	yearlong	common
sedge wetland	yearlong	abundant
marsh	yearlong	scarce
shallow open water	yearlong	scarce
cultivated field	yearlong	abundant
orchard/vineyard	yearlong	abundant
pasture	yearlong	common
urban	yearlong	common

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	l	l	l														
REPRODUCTION	m	m	l	l	l												h		

Meadow Vole

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	l	l	l														
REPRODUCTION	m	m	l	l	l												h		

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	m	l	l	l														
REPRODUCTION	h	m	l	l	l														

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	m	l	l	l														
REPRODUCTION	h	m	l	l	l														

Meadow Vole

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	l		l			l			l			l					
REPRODUCTION	m	m	l		l			l			l			l			h		

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l	l						l			l					
REPRODUCTION	h	h	m	l	l						l			l			h		

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

Meadow Vole

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	m																		

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	m	1	1															
REPRODUCTION	h	m	1	1															

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

Meadow Vole

HABITAT cultivated field											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	h										
REPRODUCTION	h										

HABITAT orchard/vineyard											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			h	h	h	h					
REPRODUCTION			h	h	h	h					

HABITAT pasture											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING		m									
REPRODUCTION		l									

Meadow Vole

HABITAT urban											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING							1				
REPRODUCTION							1				

SOUTHERN INTERIOR ECOPROVINCE

Montane Vole

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Engelmann spruce - subalpine fir dry parkland	yearlong	scarce
trembling aspen copse	yearlong	common
big sage shrub/grassland	yearlong	scarce
bunchgrass grassland	yearlong	common
dry alpine	yearlong	scarce
alpine meadow/subalpine meadow	yearlong	common
shrub wetland	yearlong	common
sedge wetland	yearlong	common
cultivated field	yearlong	scarce
orchard/vineyard	yearlong	common
pasture	yearlong	scarce

HABITAT trembling aspen copse

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	m	l	l																
REPRODUCTION	h	m	l	l														h		

Montane Vole

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																h		

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	l																	
REPRODUCTION	m	l																	

Montane Vole

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																			
REPRODUCTION	m																			

HABITAT orchard/vineyard												
SEASON OF USE yearlong												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			m	m	m	m					
REPRODUCTION			m	m	m	m					

SOUTHERN INTERIOR ECOPROVINCE

Long-tailed Vole

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	scarce
Douglas-fir - lodgepole pine	yearlong	scarce
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
spruce riparian	yearlong	common
trembling aspen copse	yearlong	scarce
black cottonwood riparian	yearlong	common
big sage shrub/grassland	yearlong	scarce
bunchgrass grassland	yearlong	common
shrub wetland	yearlong	common
sedge wetland	yearlong	common

HABITAT spruce riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l	l														
REPRODUCTION	h	h	m	l	l												h		

HABITAT black cottonwood riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l	l														
REPRODUCTION	h	h	m	l	l												h		

Long-tailed Vole

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	m																		

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	l	l															
REPRODUCTION	m	m	l	l													h		

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	m																		

SOUTHERN INTERIOR ECOPROVINCE

Muskrat

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
black cottonwood riparian	yearlong	common
marsh	yearlong	abundant
shallow open water	yearlong	common
lake	yearlong	common
slow perennial stream	yearlong	abundant

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	l	l																
REPRODUCTION																			

HABITAT marsh																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

Muskrat

HABITAT shallow open water									
SEASON OF USE yearlong									
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING	m							
REPRODUCTION	l							

HABITAT lake								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING					l	h		
REPRODUCTION			l					

HABITAT slow perennial stream								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING					l	h		
REPRODUCTION			h					

SOUTHERN INTERIOR ECOPROVINCE

Northern Bog Lemming

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
spruce riparian	yearlong	unknown
shrub wetland	yearlong	unknown
sedge wetland	yearlong	unknown
alpine meadow/subalpine meadow	yearlong	unknown

HABITAT spruce riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	1	1																
REPRODUCTION	m	1	1																

HABITAT shrub wetland

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	1	1																
REPRODUCTION	m	1	1																

Northern Bog Lemming

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION	m																		

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1																		
REPRODUCTION	1																		

SOUTHERN INTERIOR ECOPROVINCE

Meadow Jumping Mouse

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
spruce riparian	yearlong	common
black cottonwood riparian	yearlong	common
alpine meadow/subalpine meadow	yearlong	common
shrub wetland	yearlong	common
sedge wetland	yearlong	common
cultivated field	yearlong	scarce

HABITAT spruce riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l	l														
REPRODUCTION	h	h	m	l	l												m		

HABITAT black cottonwood riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l	l														
REPRODUCTION	h	h	m	l	l												m		

Meadow Jumping Mouse

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	m	l	l															
REPRODUCTION	h	m	l	l													m		

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

SOUTHERN INTERIOR ECOPROVINCE

Western Jumping Mouse

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
spruce riparian	yearlong	common
black cottonwood riparian	yearlong	common
alpine meadow/subalpine meadow	yearlong	common
shrub wetland	yearlong	common
sedge wetland	yearlong	common

HABITAT spruce riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l	l														
REPRODUCTION	h	h	m	l	l														

HABITAT black cottonwood riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l	l														
REPRODUCTION	h	h	m	l	l														

Western Jumping Mouse

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	m	1	1															
REPRODUCTION	h	m	1	1															

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

SOUTHERN INTERIOR ECOPROVINCE

Porcupine

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	scarce
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	common
spruce riparian	yearlong	common
Engelmann spruce - subalpine fir dry parkland	yearlong	common
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	common
talus/rock	yearlong	common
dry alpine	yearlong	scarce
alpine meadow/subalpine meadow	yearlong	common
shrub wetland	yearlong	common
cultivated field	yearlong	scarce
orchard/vineyard	yearlong	scarce

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	l	l	l	l	l	l	l	m	m	m	h	h	h			
REPRODUCTION								l	l	l	m	m	m	h	h	h	h	h	

Porcupine

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GFORASBS/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	m	m	1	1	1	1	1	1	1	m	m	m	m	m	m			
REPRODUCTION										1	m	m	m	m	m	m	m	m	

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GFORASBS/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	1	1	1	1	m	1	1	h	h	h	h	h	h			
REPRODUCTION								1	1	1	m	m	m	h	h	h	h	h	

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GFORASBS/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1		1	1		1	1		1	1		1	1				
REPRODUCTION														1	1		h	m	

Porcupine

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		l	l	m	l	m	m	m	l	l	m	m	m	m	m	m			
REPRODUCTION											l	m	m	m	m	m	h	h	

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	m	m	m	l	l	m	l	l	m	m	m	m	m	m			
REPRODUCTION											l	m	m	m	m	m	h	m	

HABITAT talus/rock																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		l	m																
REPRODUCTION	m	m	m																

Porcupine

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		l	l	m															
REPRODUCTION																			

SOUTHERN INTERIOR ECOPROVINCE

Gray Wolf

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - lodgepole pine	yearlong	scarce
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
spruce riparian	yearlong	scarce
Engelmann spruce - subalpine fir dry parkland	yearlong	scarce
trembling aspen copse	yearlong	rare
black cottonwood riparian	yearlong	scarce
shrub wetland	yearlong	scarce
sedge wetland	yearlong	scarce
alpine meadow/subalpine meadow	yearlong	scarce

HABITAT Douglas-fir - lodgepole pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D.	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
REPRODUCTION																				

HABITAT Engelmann spruce - subalpine fir dry forested

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
REPRODUCTION																				

Gray Wolf

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
REPRODUCTION																				

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1						1	1		1	1		1	1				
REPRODUCTION																				

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
REPRODUCTION																				

Gray Wolf

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1															
REPRODUCTION																			

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1																		
REPRODUCTION																			

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1																		
REPRODUCTION																			

SOUTHERN INTERIOR ECOPROVINCE

Coyote

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	abundant
Douglas-fir - ponderosa pine	yearlong	abundant
Douglas-fir - lodgepole pine	yearlong	abundant
Engelmann spruce - subalpine fir dry forested	yearlong	common
spruce riparian	yearlong	common
trembling aspen copse	yearlong	abundant
black cottonwood riparian	yearlong	common
big sage shrub/grassland	yearlong	abundant
talus/rock	yearlong	scarce
bunchgrass grassland	yearlong	abundant
dry alpine	yearlong	common
shrub wetland	yearlong	common
sedge wetland	yearlong	common
marsh	winter	common
marsh	summer	scarce
alpine meadow/subalpine meadow	yearlong	abundant
shallow open water	yearlong	scarce
lake	yearlong	scarce
cultivated field	yearlong	common
orchard/vineyard	yearlong	common
pasture	yearlong	abundant
urban	yearlong	common
fast perennial stream	winter	scarce
slow perennial stream	winter	scarce

HABITAT ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	G F O R A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	h	m		h	m		h	m		h	m				
REPRODUCTION	h	h	h	h	m			m			m			m					

Coyote

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	h	m	l	h	m	l	h	m	l	h	m	l				
REPRODUCTION	m	m	m	m	l			l			l			l						

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	m		m	l		m	l		m	l					
REPRODUCTION	l	l	l	l																

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	l	l	l		l	l		l	l		l	l					
REPRODUCTION	l	l	l	l																

Coyote

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
REPRODUCTION	1	1																		

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m				m	m	m	m	m	m							
REPRODUCTION	m	1						1												

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m			
REPRODUCTION	1	1																		

Coyote

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	h															
REPRODUCTION	h	h	h	h	h															

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																			
REPRODUCTION																				

HABITAT dry alpine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1																			
REPRODUCTION																				

Coyote

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		1	1	1															
REPRODUCTION																				

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																			
REPRODUCTION																				

HABITAT marsh																				
SEASON OF USE winter																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																			
REPRODUCTION																				

Coyote

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT cultivated field												
SEASON OF USE summer												
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	h										
REPRODUCTION											

HABITAT cultivated field												
SEASON OF USE winter												
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	m										
REPRODUCTION											

Coyote

HABITAT orchard/vineyard											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			1	1	m	m					
REPRODUCTION											

HABITAT pasture											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING		m									
REPRODUCTION		1									

HABITAT urban											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING							1				
REPRODUCTION											

SOUTHERN INTERIOR ECOPROVINCE

Red Fox

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	scarce
Douglas-fir - lodgepole pine	yearlong	scarce
Engelmann spruce - subalpine fir dry forested	summer	scarce
spruce riparian	summer	scarce
trembling aspen copse	yearlong	scarce
black cottonwood riparian	yearlong	common
big sage shrub/grassland	yearlong	abundant
talus/rock	yearlong	scarce
bunchgrass grassland	yearlong	scarce
shrub wetland	yearlong	scarce
sedge wetland	yearlong	scarce
marsh	yearlong	scarce
cultivated field	yearlong	scarce
orchard/vineyard	yearlong	common
pasture	yearlong	common
urban	yearlong	common

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l	l	l	l	l	l	l	l	l	l	l	l	l	m		
REPRODUCTION																			

Red Fox

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	h	m	m															
REPRODUCTION	h	h	m	l															

HABITAT orchard/vineyard												
SEASON OF USE yearlong												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			l	l	m	m					
REPRODUCTION											

HABITAT pasture												
SEASON OF USE yearlong												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING		m									
REPRODUCTION		l									

Red Fox

HABITAT urban											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING							m				
REPRODUCTION							1				

SOUTHERN INTERIOR ECOPROVINCE

Black Bear

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	abundant
Engelmann spruce - subalpine fir dry forested	yearlong	common
spruce riparian	yearlong	common
Engelmann spruce - subalpine fir dry parkland	yearlong	common
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	abundant
big sage shrub/grassland	yearlong	scarce
talus/rock	summer	scarce
bunchgrass grassland	yearlong	common
dry alpine	summer	common
alpine meadow/subalpine meadow	summer	common
shrub wetland	summer	common
sedge wetland	summer	scarce
marsh	summer	scarce
fast perennial stream	summer	scarce
slow perennial stream	summer	scarce
cultivated field	summer	scarce
orchard/vineyard	summer	common
pasture	summer	scarce
urban	summer	scarce

Black Bear

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	m	m	m	l	l	l	l	l	l	l	l	l	m	m	m		
REPRODUCTION				l	l	l	l	l	l	l	l	l	l	l	l	l	l		

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	h	m	l	m	l		m	l		m	l	l	m		
REPRODUCTION	l	l	l	l	l	l	l	l	l	l	l	l	l	l	m	m	m		

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	h	h	h	m	l	l	m	l		m	l		m	l	l	m		
REPRODUCTION	l	l	l	l	l	l	l	l	l	l	l	l	l	m	m	m	m		

Black Bear

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	l	l	m	l		m	l		m	l	l	m		
REPRODUCTION	l	l	l	l	l	l	l	l	l	l	l	l	l	m	m	m	m		

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	l	l															
REPRODUCTION																			

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	m	m	l	l	m	l	l	m	l	l				m		
REPRODUCTION								l	l	l	l	l	l						

Black Bear

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	m	m	l	l	m	l	l	m	l	l	m	l	l	m		
REPRODUCTION											l	l	l	l	m	m	m		

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT dry alpine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l																		
REPRODUCTION																			

Black Bear

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT shrub wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	1	1															
REPRODUCTION																			

HABITAT orchard/vineyard												
SEASON OF USE summer												
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING					m	m					
REPRODUCTION											

SOUTHERN INTERIOR ECOPROVINCE

Grizzly Bear

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - lodgepole pine	yearlong	scarce
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
spruce riparian	yearlong	scarce
Engelmann spruce - subalpine fir dry parkland	yearlong	scarce
dry alpine	summer	scarce
alpine meadow/subalpine meadow	summer	scarce
shrub wetland	summer	scarce
sedge wetland	summer	scarce

HABITAT Douglas-fir - lodgepole pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/BARREN	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	1	1															
REPRODUCTION											1	1	1	1	1	m			

HABITAT Engelmann spruce - subalpine fir dry forested

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/BARREN	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1	m	m	m	1	1	m	1		m	1		m	1		m		
REPRODUCTION											1	1	1	1	1	1	m		

Grizzly Bear

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		1	1	1	1															
REPRODUCTION												1	1	1	1	1	m			

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		1	1	m	m	m	1	1	m	1		m	1		m	1		m		
REPRODUCTION												1	1	1	1	1	1	m		

HABITAT dry alpine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		1																		
REPRODUCTION																				

Grizzly Bear

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																			
REPRODUCTION																				

HABITAT shrub wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1	1																		
REPRODUCTION																				

HABITAT sedge wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1																			
REPRODUCTION																				

SOUTHERN INTERIOR ECOPROVINCE

Raccoon

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
trembling aspen copse	yearlong	scarce
black cottonwood riparian	yearlong	common
marsh	yearlong	common
shallow open water	yearlong	common
lake	yearlong	common
fast perennial stream	yearlong	scarce
slow perennial stream	yearlong	common
cultivated field	yearlong	scarce
orchard/vineyard	winter	common
urban	yearlong	scarce

HABITAT black cottonwood riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	l	l	l						l	l	l	l	l				
REPRODUCTION											m	m	m	h	h	h	h	h	

HABITAT marsh

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION																			

Raccoon

HABITAT shallow open water								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING	m							
REPRODUCTION								

HABITAT lake								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING					l	m		
REPRODUCTION								

HABITAT slow perennial stream								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING					m	h		
REPRODUCTION								

HABITAT orchard/vineyard											
SEASON OF USE winter											
LIFE REQUISITES	C.F.L.D.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			m	m	m	m					
REPRODUCTION											

SOUTHERN INTERIOR ECOPROVINCE

Marten

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	common
spruce riparian	yearlong	common
Engelmann spruce - subalpine fir dry parkland	yearlong	scarce
black cottonwood riparian	yearlong	scarce
talus/rock	yearlong	scarce

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING										1	1	1	1	m	m	m	m	h		
REPRODUCTION													1	m	m	m	m	h	h	

Marten

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING							1	1	1	1	1	m	h	h	h	h	h		
REPRODUCTION											1	m	h	h	h	h	h	h	

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING							1	1	1	1	1	m	h	h	h	h	h		
REPRODUCTION											1	m	h	h	h	h	h	h	

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING							1	1	1	1	1	m	h	h	h	h	h		
REPRODUCTION											1	m	h	h	h	h	h	h	

SOUTHERN INTERIOR ECOPROVINCE

Fisher

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	common
spruce riparian	yearlong	common
Engelmann spruce - subalpine fir dry parkland	yearlong	scarce
black cottonwood riparian	yearlong	common

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING									1	1	1	1	1	1	m	m	h		
REPRODUCTION													1	1	m	m	h	h	

HABITAT Douglas-fir - lodgepole pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING					1	1	m	1	1	m	m	h	h	h	h	h	h		h
REPRODUCTION										1	m	h	h	h	h	h	h	h	

Fisher

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING					l	l	l	l	l	l	m	h	h	h	h	h	h		
REPRODUCTION										l	m	h	h	h	h	h	h	h	

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING					l	l	l	l	l	l	m	h	h	h	h	h	h		
REPRODUCTION										l	m	h	h	h	h	h	h	h	

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING											l	m	m	m	h	h	h		
REPRODUCTION												l	m	m	h	h	h	h	

SOUTHERN INTERIOR ECOPROVINCE

Ermine

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	common
talus/rock	yearlong	common
bunchgrass grassland	yearlong	scarce
shrub wetland	yearlong	common
sedge wetland	yearlong	common
cultivated field	yearlong	scarce

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	l	m	l	l	l	l	m	l	l	m	m	m	m	m	m	h		
REPRODUCTION					l	l	l	l	m	m	m	m	m	m	m	m	m	h	h	

Ermine

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	m	m	m	m	m	h	h	m	h	h	m	h		
REPRODUCTION						l	l	m	m	m	h	h	h	h	h	h	h	h	

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	l	m	l	l	m	m	l	m	m	m				h		
REPRODUCTION			l	m	m	l	l	m	l	l	m	m	m				h	h	

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	h	m	m	h	m	m	l	l	l	m	l	l	m	m	l	h	h	
REPRODUCTION										l	m	m	l	m	m	l	h	h	

Ermine

HABITAT talus/rock																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	l	m																
REPRODUCTION			m	m																

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	m	m															
REPRODUCTION																				

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																			
REPRODUCTION																				

SOUTHERN INTERIOR ECOPROVINCE

Long-tailed Weasel

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	common
spruce riparian	yearlong	common
Engelmann spruce - subalpine fir dry parkland	yearlong	common
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	common
big sage shrub/grassland	yearlong	scarce
talus/rock	yearlong	common
bunchgrass grassland	yearlong	common
dry alpine	yearlong	scarce
alpine meadow/subalpine meadow	yearlong	common
shrub wetland	yearlong	common
sedge wetland	yearlong	scarce
cultivated field	yearlong	scarce
orchard/vineyard	yearlong	scarce
pasture	yearlong	scarce
urban	yearlong	scarce

Long-tailed Weasel

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	l	l	l									h		
REPRODUCTION		l	l	m	m	l											h	h	

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	h	m	l	l	l								h		h
REPRODUCTION		l	m	h	h	m											h	h	

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	h	m	l	l	l								h		
REPRODUCTION		l	m	h	h	m											h	h	

Long-tailed Weasel

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	m	l	l	l										h		
REPRODUCTION		l	m	h	h	m												h	h	

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	m		m	m		m	l		l	l		l	l		h		
REPRODUCTION			l		m	m		m	m		l	l		l	l		h	h	

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	h	m	l	l	l		l							h		
REPRODUCTION		l	m	h	h	h	l	l	l		l							h	h	

Long-tailed Weasel

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	m	m	l	l	l	l	l	l	l	l	l	l	h		
REPRODUCTION		l	l	l	m	m	l	l	l	l	l	l	l	l	l	l	h	h	

HABITAT talus/rock																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m																
REPRODUCTION	m	m	m																

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

Long-tailed Weasel

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	m															
REPRODUCTION																			

SOUTHERN INTERIOR ECOPROVINCE

Mink

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
black cottonwood riparian	yearlong	common
marsh	yearlong	common
shallow open water	yearlong	scarce
lake	yearlong	common
fast perennial stream	yearlong	common
slow perennial stream	yearlong	common

HABITAT black cottonwood riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	m	m	m	l	l	l	l	l	l	l	l	l	l	l	m		
REPRODUCTION				l	l	l	l	l	l	l	h	h	h	h	h	h	h		

HABITAT marsh

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION																			

Mink

HABITAT lake								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING			m	l	m	h	l	
REPRODUCTION			h					

HABITAT fast perennial stream								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		l	l	m	m			
REPRODUCTION			m					

HABITAT slow perennial stream								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		m	m	h	h			
REPRODUCTION			h					

SOUTHERN INTERIOR ECOPROVINCE

Wolverine

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - lodgepole pine	yearlong	rare
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
spruce riparian	yearlong	scarce
Engelmann spruce - subalpine fir dry parkland	summer	scarce
talus/rock	summer	scarce
dry alpine	summer	scarce
alpine meadow/subalpine meadow	summer	scarce
sedge wetland	summer	scarce

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	l		l			m	m	m	m	m	m	h		
REPRODUCTION											m	m	m	m	m	m	h	h	

Wolverine

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	l		l			m	m	m	m	m	m	h		
REPRODUCTION											m	m	m	m	m	m	h	h	

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE summer																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m		m	m		m	m		m	m		m	m		m		
REPRODUCTION											l	l		l	l		m	l	

HABITAT talus/rock																				
SEASON OF USE summer																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			M TURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m																
REPRODUCTION	m	m	m																

Wolverine

HABITAT dry alpine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT sedge wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1																		
REPRODUCTION																			

SOUTHERN INTERIOR ECOPROVINCE

Badger

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	rare
Douglas-fir - ponderosa pine	yearlong	rare
big sage shrub/grassland	yearlong	rare
bunchgrass grassland	yearlong	rare
pasture	yearlong	rare

HABITAT ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		1	1	1	1			1			1			1					
REPRODUCTION	m		1	1	1	1			1			1			1					

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		1	1		1			1											
REPRODUCTION	m		1	1		1			1											

Badger

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	1	1	1															
REPRODUCTION	m	1	1	1															

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION	h																		

HABITAT pasture																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1																		
REPRODUCTION																			

SOUTHERN INTERIOR ECOPROVINCE

Striped Skunk

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	common
big sage shrub/grassland	yearlong	scarce
bunchgrass grassland	summer	scarce
shrub wetland	yearlong	common
sedge wetland	summer	scarce
marsh	summer	scarce
cultivated field	summer	common
orchard/vineyard	winter	common
urban	yearlong	scarce
man-made elements	yearlong	scarce

HABITAT trembling aspen copse

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l		m	m	m	m			l			l								
REPRODUCTION										l	m	m	h	h						

HABITAT black cottonwood riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		m	h	h	m	l		l			l	l	l	l	l	l	h		
REPRODUCTION	l		l	l	l	l	l	l	l	l	l	m	m	m	m	m	m	h	h	

Striped Skunk

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		m	h	h															
REPRODUCTION	l		l	l	l															

HABITAT cultivated field												
SEASON OF USE summer												
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	m										
REPRODUCTION											

HABITAT orchard/vineyard												
SEASON OF USE winter												
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			h	h	h	h					
REPRODUCTION											

SOUTHERN INTERIOR ECOPROVINCE

River Otter

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
black cottonwood riparian	yearlong	scarce
marsh	yearlong	scarce
lake	yearlong	scarce
fast perennial stream	yearlong	scarce
slow perennial stream	yearlong	scarce

HABITAT black cottonwood riparian

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	l	l	l	l		l											
REPRODUCTION										l	m	h	h	h	h	h	m	l	

HABITAT marsh

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION																			

River Otter

HABITAT lake								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		l	m	m	h	h	m	
REPRODUCTION			h					

HABITAT fast perennial stream								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		l	l	l	m		l	
REPRODUCTION			h					

HABITAT slow perennial stream								
SEASON OF USE yearlong								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING		m	h	m	h	h	h	
REPRODUCTION			h					

SOUTHERN INTERIOR ECOPROVINCE

Cougar

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	common
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	yearlong	scarce
spruce riparian	yearlong	scarce
Engelmann spruce - subalpine fir dry parkland	yearlong	scarce
trembling aspen copse	yearlong	scarce
black cottonwood riparian	yearlong	scarce
big sage shrub/grassland	yearlong	scarce
talus/rock	yearlong	common
bunchgrass grassland	yearlong	scarce
alpine meadow/subalpine meadow	yearlong	scarce
shrub wetland	yearlong	scarce
sedge wetland	yearlong	scarce
marsh	yearlong	scarce
cultivated field	yearlong	scarce
orchard/vineyard	yearlong	scarce
pasture	yearlong	scarce
urban	yearlong	scarce
cliffs	yearlong	scarce
caves	yearlong	common

HABITAT ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	m		m	m		m	m		m	m				
REPRODUCTION																			

Cougar

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	h	h	h	m	m	l	h	m	l	h	m	l	h	h	h			
REPRODUCTION																			

HABITAT Douglas-fir - lodgepole pine forest																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	h	h	m		m	m		m	m	l	m	m	l			
REPRODUCTION																			

HABITAT talus/rock																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l																		
REPRODUCTION																			
	m																		

Cougar

HABITAT cliffs											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING										l	
REPRODUCTION										h	
ESCAPE COVER										h	

HABITAT caves											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION										h	
ESCAPE COVER										h	

SOUTHERN INTERIOR ECOPROVINCE

Lynx

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	yearlong	scarce
Douglas-fir - lodgepole pine	yearlong	abundant
Engelmann spruce - subalpine fir dry forested	yearlong	abundant
spruce riparian	yearlong	common
trembling aspen copse	yearlong	scarce
black cottonwood riparian	yearlong	common
shrub wetland	yearlong	common

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	m	m	l	l	h	m	l	h	m	l	m	l	l			m
REPRODUCTION				l	l	l	m	l	l	m	l	l	m	m	m	m	h		

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	m	m	l	l	h	m	l	h	m	l	m	l	l			
REPRODUCTION				l	l	l	m	l	l	m	l	l	m	m	m	m	h		

Lynx

HABITAT spruce riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	m	m	m	l	m	m	l	m	m	l	m	l	l			
REPRODUCTION				l	l	l	m	l	l	m	l	l	m	m	m	m	m		

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	h	m	h	h	m	l	h	h	m	m	h	l	l				
REPRODUCTION				l			l			l			l	l	l	l	m		

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m															
REPRODUCTION																			

SOUTHERN INTERIOR ECOPROVINCE

Bobcat

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	common
Douglas-fir - ponderosa pine	yearlong	abundant
Douglas-fir - lodgepole pine	yearlong	common
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	common
big sage shrub/grassland	yearlong	common
talus/rock	yearlong	common
bunchgrass grassland	yearlong	scarce
shrub wetland	yearlong	scarce
sedge wetland	yearlong	scarce
marsh	yearlong	scarce
cultivated field	yearlong	scarce
orchard/vineyard	yearlong	scarce
pasture	yearlong	scarce
cliffs	yearlong	common
caves	summer	common

HABITAT ponderosa pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	m	l	m		l	m		l	m		l	m		h		
REPRODUCTION														l	l		l		

Bobcat

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB			SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	h	h	m	m	h	m	l	h	m	l	h	m	m	h					
REPRODUCTION											l	l	l	m	m	m	h					

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB			SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	h	m	m	l	m	m	l	m	m	l	m	m	m	m		m			
REPRODUCTION														l	l	l	m	m	m	h		

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB			SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	m	m	l	l	m	m	m	m	m	m									
REPRODUCTION																						

Bobcat

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	m	h	h	m	m	m	m	l	m	m	m	m	m	m	h		
REPRODUCTION											l	l	l	m	m	m	m		

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	m	m															
REPRODUCTION																			

HABITAT talus/rock																				
SEASON OF USE yearlong																				
LIFE REQUISITES	G F R O A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	l																
REPRODUCTION	m	m	m																

Bobcat

HABITAT cliffs											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION										h	
ESCAPE COVER										h	

HABITAT caves											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING											
REPRODUCTION											h

SOUTHERN INTERIOR ECOPROVINCE

Elk

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	winter	scarce
Douglas-fir - ponderosa pine	summer	scarce
Douglas-fir - ponderosa pine	winter	common
Douglas-fir - lodgepole pine	summer	common
Douglas-fir - lodgepole pine	winter	common
Engelmann spruce - subalpine fir dry forested	summer	scarce
spruce riparian	summer	scarce
Engelmann spruce - subalpine fir dry parkland	summer	common
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	common
big sage shrub/grassland	yearlong	common
talus/rock	yearlong	scarce
bunchgrass grassland	yearlong	abundant
alpine meadow/subalpine meadow	summer	common
shrub wetland	summer	common
sedge wetland	yearlong	common
cultivated field	yearlong	common
orchard/vineyard	yearlong	scarce
pasture	yearlong	common

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE winter

LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
	BARE	S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	l		l			l			l			l					
REPRODUCTION																			
THERMAL COVER									l	l		m	m		h	h			
HIDING COVER						m	m		l	l		l	l		l	l			

Elk

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/BARS	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	l	l														
REPRODUCTION			l	m	l	l	m	m	l	m	m	l	m	m	l	m			
THERMAL COVER									l	l		m	m		h	h			
HIDING COVER						m	m		l	l		l	l		l	l			

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE winter																				
LIFE REQUISITES	GRASS/BARS	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	l		l			l			l	l	l			
REPRODUCTION																			
THERMAL COVER										l		l	m		m	h			

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/BARS	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m		m	l		m	l		m	l		m	l				
REPRODUCTION			l			l			l			l			l				

Elk

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		m	m	m	m	l	l	l	l	l	l	l	l						
REPRODUCTION			m	m	m	m	m	m	m	m	m	m	m	m						
THERMAL COVER								l			l			l						

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	m	m	m	l	m	l		m	l		m	l					
REPRODUCTION			m	m	l	m	m	m	l	m	m	l	m	m	l	m				
THERMAL COVER							l			l		l	m		m	m				
HIDING COVER										l		l	m		m	m				

HABITAT big sage shrub/grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB/	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h		m	l																
REPRODUCTION					l															

Elk

HABITAT bunchgrass grassland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION																			

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT shrub wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m															
REPRODUCTION			1	1															

Elk

HABITAT sedge wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT cultivated field												
SEASON OF USE yearlong												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	h										
REPRODUCTION											

HABITAT pasture												
SEASON OF USE yearlong												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING		h									
REPRODUCTION											

SOUTHERN INTERIOR ECOPROVINCE

Mule Deer

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	summer	common
Douglas-fir - ponderosa pine	summer	abundant
Douglas-fir - ponderosa pine	winter	abundant
Douglas-fir - lodgepole pine	summer	common
Douglas-fir - lodgepole pine	winter	common
Engelmann spruce - subalpine fir dry forested	winter	common
spruce riparian	summer	common
Engelmann spruce - subalpine fir dry parkland	summer	common
trembling aspen copse	summer	common
trembling aspen copse	winter	scarce
black cottonwood riparian	yearlong	abundant
big sage shrub/grassland	summer	common
big sage shrub/grassland	winter	common
talus/rock	summer	common
talus/rock	winter	scarce
bunchgrass grassland	summer	common
bunchgrass grassland	winter	scarce
dry alpine	summer	common
alpine meadow/subalpine meadow	summer	common
shrub wetland	summer	scarce
cultivated field	summer	abundant
cultivated field	winter	scarce
orchard/vineyard	yearlong	common
pasture	summer	abundant
pasture	winter	scarce

HABITAT ponderosa pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	l	l	l	l	l		l	l		l	l		l	l					
REPRODUCTION	l	l	l	l	l	l	l	l	l	l	l	l	l	l	l					

Mule Deer

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	m	l		m	l		m	l		m	l					
REPRODUCTION	l	l	l	l	l	l	l	l	l	l	l	l	l	l	l	l				

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE winter																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	h	h	h	m	l		m	l		m	l	l	m	m	m				
REPRODUCTION																				
HIDING COVER									l	l		m	m		m	h				

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	h	h	h	h	l		m	l		m	l		m	l	l				h
REPRODUCTION	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m				
THERMAL COVER													m	h		m	h			
HIDING COVER							m			m				h			h			

Mule Deer

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE winter																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING			m	m	m	m	l		l			l	l	l	m	m	m			l
REPRODUCTION																				
THERMAL COVER													l	m	l	m	h			

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		m	m	m	m	l		m	l		m	l		m	l				
REPRODUCTION	m		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m			
THERMAL COVER									l	l	l	l	l	l	m	m	m			
HIDING COVER							l	m		m	m		m	m		m	m			

HABITAT spruce riparian																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l		h	h	h	m	l	l	m	l		m	l		m	l				
REPRODUCTION	m		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m			
THERMAL COVER									l	l	l	l	l	l						
HIDING COVER							l	m		m	m		m	m		m	m			

Mule Deer

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m		m	l		m	l		m	l		m	l					
REPRODUCTION	l	l	l		l	l		l	l		l	l		l	l					
THERMAL COVER								l	l		l	l		l	l					
HIDING COVER									m			m			m					

HABITAT trembling aspen copse																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	h	h	m	l	l	l	l		l	l								
REPRODUCTION	l	l	l	l	l	l	l	l	l	l	l	l	l							
THERMAL COVER									m	m		m	m							
HIDING COVER									l	m		l	m							

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	h	h	m	m	l	m	l	l	m	l	l	m	l	l				
REPRODUCTION	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m				
THERMAL COVER								l	m	m	l	m	m	l	m	m				

Mule Deer

HABITAT big sage shrub/grassland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	h	m	l															
REPRODUCTION	l	l	l	l															

HABITAT big sage shrub/grassland																				
SEASON OF USE winter																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	m	m	m															
REPRODUCTION																			
HIDING COVER			l	l															

HABITAT talus/rock																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING			l	l															
REPRODUCTION																			
ESCAPE COVER	m	m	m																

Mule Deer

HABITAT bunchgrass grassland																				
SEASON OF USE summer																				
LIFE REQUISITES	G F O R A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT dry alpine																				
SEASON OF USE summer																				
LIFE REQUISITES	G F O R A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	1																		
REPRODUCTION																			
THERMAL COVER	m																		

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE summer																				
LIFE REQUISITES	G F O R A R S B S/	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			
THERMAL COVER	m																		

Mule Deer

HABITAT cultivated field											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	h										
REPRODUCTION											

HABITAT orchard/vineyard											
SEASON OF USE yearlong											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING			h	h	m	m					
REPRODUCTION											

HABITAT pasture											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING		m									
REPRODUCTION											

SOUTHERN INTERIOR ECOPROVINCE

White-tailed Deer

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	yearlong	scarce
Douglas-fir - ponderosa pine	summer	scarce
Douglas-fir - ponderosa pine	winter	common
Douglas-fir - lodgepole pine	summer	common
Douglas-fir - lodgepole pine	winter	scarce
Engelmann spruce - subalpine fir dry forested	summer	scarce
trembling aspen copse	yearlong	common
black cottonwood riparian	yearlong	abundant
shrub wetland	summer	common
slow perennial stream	summer	scarce
cultivated field	summer	common

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE winter

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING			h	h	h	m	l		m	l		m	l		m	l				
REPRODUCTION																				
HIDING COVER											l		m	m		m	h			

White-tailed Deer

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		h	h	h	m	l		m	l		m	l		m	l				
REPRODUCTION		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m			
HIDING COVER						l	m		l	m		l	m		l	m			

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		h	h	h	h	m		h	m		h	m							
REPRODUCTION		m	m	m	m	m	m	m	m	m	m	m	m						
THERMAL AND HIDING COVER							m		m	h		m	h						

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		h	h	h	h	m	l	h	m	l	h	m	l	h	m	l			
REPRODUCTION		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m			
HIDING COVER									l	m		m	m		m	h			

White-tailed Deer

HABITAT shrub wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l		m	m	m															
REPRODUCTION																				

HABITAT cultivated field											
SEASON OF USE summer											
LIFE REQUISITES	C. FLD.	PAST.	ORCHARD				URBAN	BARR.	M. M. ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING	h										
REPRODUCTION											

SOUTHERN INTERIOR ECOPROVINCE

Moose

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - ponderosa pine	winter	scarce
Douglas-fir - lodgepole pine	yearlong	common
Engelmann spruce - subalpine fir dry forested	summer	common
Engelmann spruce - subalpine fir dry forested	winter	scarce
spruce riparian	summer	abundant
spruce riparian	winter	scarce
Engelmann spruce - subalpine fir dry parkland	summer	common
trembling aspen copse	summer	scarce
trembling aspen copse	winter	abundant
black cottonwood riparian	yearlong	abundant
talus/rock	yearlong	scarce
alpine meadow/subalpine meadow	summer	common
shrub wetland	yearlong	common
sedge wetland	summer	common
marsh	yearlong	scarce
shallow open water	summer	common
lake	summer	common
slow perennial stream	summer	common

HABITAT Douglas-fir - lodgepole pine

SEASON OF USE yearlong

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING			m	m	m	m	l		m	l		m	l		m	l				h
REPRODUCTION			l	l	l	l	l	l	l	l	l	l	l	l	l	l	l	l	l	l
THERMAL COVER													m	m		m	m			

Moose

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m	m	l			l			l			l					
REPRODUCTION		l	l	l	l	l	l	l	l	l	l	l	l	l	l	l			
THERMAL COVER												m	m		m	m			

HABITAT spruce riparian																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		h	h	h	m	l		m	l		m	l		m	l				
REPRODUCTION		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m			
THERMAL COVER											m	m		m	m				

HABITAT Engelmann spruce - subalpine fir dry parkland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l	l	l	l															
REPRODUCTION																			
COVER												l			l				

Moose

HABITAT trembling aspen copse																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING			h	h	h	h	m	m	h	m	l	h	m	l						
REPRODUCTION																				

HABITAT black cottonwood riparian																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING			h	h	h	h	m	m	h	m	m	h	m	m	h	m	m			
REPRODUCTION			m	m	m	m	m	m	m	m	m	m	m	m	m	m	m			
COVER													m	m		m	m			

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																			
REPRODUCTION																				
THERMAL COVER	m																			

Moose

HABITAT shrub wetland																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m		h	h	h															
REPRODUCTION			m	m	m															

HABITAT sedge wetland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																			
REPRODUCTION																				
THERMAL COVER	m																			

HABITAT shallow open water								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING	h							
REPRODUCTION								

HABITAT lake								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING					l	h		
REPRODUCTION								

Moose

HABITAT slow perennial stream								
SEASON OF USE summer								
LIFE REQUISITES	POND	SHORE		LITTORAL			DEEP W.	
		R	U	R	U	A	R	U
FEEDING					!	h		
REPRODUCTION								

SOUTHERN INTERIOR ECOPROVINCE

Mountain Goat

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
Douglas-fir - ponderosa pine	yearlong	common
Douglas-fir - lodgepole pine	winter	common
Engelmann spruce - subalpine fir dry forested	yearlong	common
talus/rock	yearlong	abundant
dry alpine	yearlong	common
alpine meadow/subalpine meadow	summer	common
cliffs	yearlong	abundant

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE summer

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l		m	l					l			l			l					
REPRODUCTION																				

HABITAT Douglas-fir - ponderosa pine

SEASON OF USE winter

LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING			m	l								m			h					
REPRODUCTION																				

Mountain Goat

HABITAT Douglas-fir - lodgepole pine																				
SEASON OF USE winter																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		l	l	l							m			h					
REPRODUCTION																			

HABITAT Engelmann spruce - subalpine fir dry forested																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING		m	m	m	l	l		l	l		l	l		m	m	m			
REPRODUCTION																			

HABITAT talus/rock																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	h	h																
REPRODUCTION																			
ESCAPE COVER	m	m	m																

Mountain Goat

HABITAT dry alpine																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																			
REPRODUCTION																				

HABITAT alpine meadow/subalpine meadow																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	l																			
REPRODUCTION																				

HABITAT cliffs												
SEASON OF USE yearlong												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.MELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING										l	
REPRODUCTION										h	
ESCAPE COVER										h	

SOUTHERN INTERIOR ECOPROVINCE

Bighorn Sheep

HABITAT	SEASON OF USE	RELATIVE ABUNDANCE
ponderosa pine	summer	common
ponderosa pine	winter	common
Douglas-fir - ponderosa pine	summer	common
Douglas-fir - ponderosa pine	winter	scarce
Douglas-fir - lodgepole pine	summer	scarce
Engelmann spruce - subalpine fir dry forested	summer	scarce
big sage shrub/grassland	summer	common
big sage shrub/grassland	winter	abundant
talus/rock	yearlong	common
bunchgrass grassland	summer	common
bunchgrass grassland	winter	abundant
dry alpine	summer	common
dry alpine	winter	scarce
cultivated field	yearlong	scarce
orchard/vineyard	yearlong	scarce
cliffs	yearlong	scarce

HABITAT ponderosa pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/	FORB	SHRUB/ SEEDLING			POLE- SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
			S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	m	1	1		1	1		1	1		1	1		1	1				
REPRODUCTION																				

Bighorn Sheep

HABITAT ponderosa pine																				
SEASON OF USE winter																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	1	1	1	1	1		1	1		1	1		1	1				
REPRODUCTION																			

HABITAT Douglas-fir - ponderosa pine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	1	1	1														
REPRODUCTION																			

HABITAT big sage shrub/grassland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	m	1	1															
REPRODUCTION																			

Bighorn Sheep

HABITAT big sage shrub/grassland																				
SEASON OF USE winter																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h	m	m	l															
REPRODUCTION																			

HABITAT talus/rock																				
SEASON OF USE yearlong																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m	m	m																
REPRODUCTION																			
ESCAPE COVER	m	m	m																

HABITAT bunchgrass grassland																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/ FORB	SHRUB/ SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION																			

Bighorn Sheep

HABITAT bunchgrass grassland																				
SEASON OF USE winter																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	h																		
REPRODUCTION																			

HABITAT dry alpine																				
SEASON OF USE summer																				
LIFE REQUISITES	GRASS/FORB	SHRUB/SEEDLING			POLE-SAPLING			YOUNG			MATURE			OLD GROWTH			SPECIAL ELEMENTS		
		S	M	D	S	M	D	S	M	D	S	M	D	S	M	D	DM	SN	DEC
FEEDING	m																		
REPRODUCTION																			

HABITAT cliffs												
SEASON OF USE yearlong												
LIFE REQUISITES	C.FLD.	PAST.	ORCHARD				URBAN	BARR.	M.M.ELE.	CLIFF	CAVE
			YOUNG		MATURE						
			M	D	M	D					
FEEDING										l	
REPRODUCTION										h	
ESCAPE COVER										h	

3

References Cited

3. REFERENCES CITED

Harcombe, A.P., C.J. Clement, and F. Russell. 1988. Wildlife habitats. Volume 9 *in* A.P. Harcombe (tech ed.). Wildlife habitat handbooks for the Southern Interior Ecoprovince. Ministry of Environ. and Ministry of For., Victoria, B.C.

Nagorsen, D. 1987. A taxonomic guide to the species and subspecies of British Columbia mammals. Preliminary draft. R. B.C. Mus., Vert. Zool. Div., Victoria.

Stevens, V., and S. Lofts. 1988. Species notes for mammals. Volume 1 *in* A.P. Harcombe (tech. ed.) Wildlife habitat handbooks for the Southern Interior Ecoprovince. Ministry of Environ. and Ministry of For., Victoria, B.C. 180 pp.

Towry, R.K., Jr. 1984. Wildlife habitat requirements. Pages 73-209 *in* R.L. Hoover and D.L. Wills (eds.). Managing forested lands for wildlife. Colo. Div. of Wild in cooperation with U.S. Dep. Agric., For. Serv., Rocky Mt. Region, Denver, Colo.

Walmsley, M., G. Utzig, T. Vold, D. Moon, and J. van Barneveld. 1980. Describing ecosystems in the field. RAB Tech. Pap. 2, Land Manage. Rep. No. 7. B.C. Ministries of Environ. and For., Resource Analysis and Res. Branches, Victoria. 225pp.

4

Index to Species

4. INDEX TO SPECIES

Badger 180, 181; 243 [1]
Bat, Big Brown 53-56; 236
Bat, Hoary 58, 59; 236
Bat, Pallid 62-64; 236
Bat, Silver-haired 49-52; 235
Bat, Spotted 60, 61; 236
Bat, Townsend's Big-eared 65, 66; 236
Bear, Black 153-157; 241
Bear, Grizzly 158-161; 242
Beaver 97, 98; 239
Big Brown Bat 53-56; 236
Bighorn Sheep 218-221; 245
Black Bear 153-157; 241
Bobcat 191-194; 244
Bushy-tailed Woodrat 108-110; 239
California Myotis 44-46; 235
Cascade Golden-mantled Ground Squirrel 238
Chipmunk, Yellow-pine 75, 76; 237
Columbian Ground Squirrel 81-84; 238
Cottontail, Nuttall's 69, 70; 237
Cougar 186-188; 243
Coyote 143-149; 241
Deer Mouse 102-107; 239
Deer, Mule 200-206; 244
Deer, White-tailed 207-209; 244
Dusky Shrew 22-25; 234
Elk, Rocky Mountain 195-199; 244
Ermine 167-169; 242
Fisher 165, 166; 242
Fox, Red 150-152; 241
Fringed Myotis 39-41; 235
Goat, Mountain 215-217; 245
Gopher, Northern Pocket 90-94; 238
Gray Wolf 140-142; 241
Great Basin Pocket Mouse 95, 96; 238
Grizzly Bear 158-160; 242
Hare, Snowshoe 71, 72; 237
Heather Vole 114-116; 239
Hoary Bat 58, 59; 236
Hoary Marmot 79, 80; 237
Jackrabbit, White-tailed 73, 74; 237
Lemming, Northern Bog 130, 131; 240
Little Brown Myotis 28-31; 234
Long-eared Myotis 35-38; 235
Long-legged Myotis 42, 43; 235
Long-tailed Vole 126, 127; 240
Long-tailed Weasel 170-174; 242
Lynx 189, 190; 244
Marmot, Hoary 79, 80; 237
Marmot, Yellow-bellied 77, 78; 237
Marten 163, 164; 242
Masked Shrew 13-16; 234
Meadow Jumping Mouse 132, 133; 240
Meadow Vole 117-122; 240
Mink 175, 176; 243
Montane Vole 123-125; 240
Moose 210-214; 244
Mountain Goat 215-217; 245
Mouse, Deer 102-107; 239
Mouse, Great Basin Pocket 95, 96; 238
Mouse, Meadow Jumping 132, 133; 240
Mouse, Western Harvest 99-101; 239
Mouse, Western Jumping 134, 135; 241
Mule Deer 200-206; 244
Muskrat 128, 129; 240
Myotis, California 44-46; 235
Myotis, Fringed 39-41; 235
Myotis, Little Brown 28-31; 234
Myotis, Long-eared 35-38; 235
Myotis, Long-legged 42, 43; 235
Myotis, Western Small-footed 47, 48; 235
Myotis, Yuma 32-34; 234
Northern Bog Lemming 130, 131; 240
Northern Flying Squirrel 88, 89; 238
Northern Pocket Gopher 90-94; 238
Nuttall's Cottontail 69, 70; 237
Otter, River 184, 185; 243
Pallid Bat 62-64; 236
Pika 67, 68; 236
Porcupine 136-138; 241
Raccoon 161, 162; 242
Red Fox 150-152; 241
Red Squirrel 85-87; 238
River Otter 184, 185; 243
Rocky Mountain Elk 195-199; 244
Sheep, Bighorn 218-221; 245
Shrew, Dusky 22-25; 234
Shrew, Masked 13-16; 234
Shrew, Vagrant 17-21; 234
Shrew, Water 26, 27; 234
Silver-haired Bat 49-52; 235
Skunk, Striped 182, 183; 243
Snowshoe Hare 71, 72; 237
Southern Red-backed Vole 111-113; 239
Spotted Bat 60, 61; 236
Squirrel, Cascade Golden-mantled Ground 238
Squirrel, Columbian Ground 81-84; 238
Squirrel, Northern Flying 88, 89; 238
Squirrel, Red 85-87; 238
Striped Skunk 182, 183; 243
Townsend's Big-eared Bat 65, 66; 236
Vagrant Shrew 17-21; 234
Vole, Heather 114-116; 239
Vole, Long-tailed 126, 127; 240
Vole, Meadow 117-122; 240
Vole, Montane 123-125; 240
Vole, Southern Red-backed 111-113; 239
Water Shrew 26, 27; 234
Weasel, Long-tailed 170-174; 242
Western Harvest Mouse 99-101; 239
Western Jumping Mouse 134, 135; 241
Western Small-footed Myotis 47, 48; 235
White-tailed Deer 207-209; 244
White-tailed Jackrabbit 73, 74; 237
Wolf, Gray 140-142; 241
Wolverine 177-179; 243
Woodrat, Bushy-tailed 108-110; 239
Yellow Pine Chipmunk 75, 76; 237
Yellow-bellied Marmot 77, 78; 237
Yellow-pine Chipmunk 75, 76; 237
Yuma Myotis 32-34; 234

[1] numbers preceding the semi-colon are found in Section 2; numbers after the semi-colon are found in Appendix.

5
Appendices

5. APPENDICES

5.1 Land Areas Required to Support Minimum Populations

This appendix contains data that relate numbers of a species required to support a minimum population to the area of habitat required. Because of the perceived controversy these numbers may generate, this information has been delegated to an appendix. It will be updated/altered when new data become available. Basically, these tables attempt to provide information that will allow the translation of a suitability index into carrying capacity (potential number of animals). These data indicate the number of individuals of a species believed necessary to maintain a population under optimal habitat conditions along with the amount of such habitat a population would need.

Towry (1984) attempted the formation of a similar data set for Colorado, except that he referred to minimum viable populations. The concept of viability is extremely involved, so this appendix uses the concept of a minimum population -- it is thought that several interacting minimum populations of a species would have to be managed to attain genetic viability. Literature on a minimum population size is very sparse, so Towry (1984) was used as a guide. One should note that similar species with similar life histories have similar population estimates.

Population numbers are those of an adult population of breeders in the spring of the year (or in the case of winter, for that population that will be adult breeders in the upcoming spring), with an even sex ratio. The minimum area required is derived from data on home range and territory size. Division of data into summer and/or winter may be made if applicable. During the process of translating suitability values into animal numbers, it must be assumed that no overlap of required range occurs. Area requirements are further identified as to those required for feeding and reproduction, based on estimates of the relative proportions of each required. The sum of these areas may not be mutually exclusive; habitat variability has been subjectively assessed to give a value for the degree that these reciprocal properties exist.

Masked Shrew

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		5
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.1	
REPRODUCTION	.1	
TOTAL	.1	

Vagrant Shrew

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		5
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.1	
REPRODUCTION	.1	
TOTAL	.1	

Dusky Shrew

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		5
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.1	
REPRODUCTION	.1	
TOTAL	.1	

Water Shrew

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		8
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.2	
REPRODUCTION	.2	
TOTAL	.3	

Little Brown Myotis

MINIMUM POPULATION		100
MINIMUM HABITAT AREA (HECTARES)		200
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	200	
REPRODUCTION	.1	
TOTAL	200	

Yuma Myotis

MINIMUM POPULATION		100
MINIMUM HABITAT AREA (HECTARES)		00
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	200	
REPRODUCTION	.1	
TOTAL	200	

Long-eared Myotis

MINIMUM POPULATION		30
MINIMUM HABITAT AREA (HECTARES)		400
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	400	
REPRODUCTION	.1	
TOTAL	400	

Fringed Myotis

MINIMUM POPULATION		30
MINIMUM HABITAT AREA (HECTARES)		400
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	400	
REPRODUCTION	.1	
TOTAL	400	

Long-legged Myotis

MINIMUM POPULATION		30
MINIMUM HABITAT AREA (HECTARES)		400
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	80	
REPRODUCTION	.1	
TOTAL	80	

California Myotis

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		40
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.4	
REPRODUCTION	.001	
TOTAL	.4	

Western Small-footed Myotis

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		40
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.4	
REPRODUCTION	.001	
TOTAL	.40	

Silver-haired Bat

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		40
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	40	
REPRODUCTION	.1	
TOTAL	40	

Big Brown Bat

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		40
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	40	
REPRODUCTION	1	
TOTAL	40	

Hoary Bat

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		80
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	80	
REPRODUCTION	.1	
TOTAL	80	

Spotted Bat

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		120
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	120	
REPRODUCTION	.1	
TOTAL	120	

Pallid Bat

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		160
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	160	
REPRODUCTION	.1	
TOTAL	160	

Townsend's Big-eared Bat

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		40
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	40	
REPRODUCTION	.1	
TOTAL	40	

Pika

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		18
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.5	
REPRODUCTION	.2	
TOTAL	.7	

Nuttall's Cottontail

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		125
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	5	
REPRODUCTION	5	
TOTAL	5	

Snowshoe Hare

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		150
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	6	
REPRODUCTION	6	
TOTAL	6	

White-tailed Jackrabbit

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		2500
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	100	
REPRODUCTION	50	
TOTAL	100	

Yellow-pine Chipmunk

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		50
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	1	
REPRODUCTION	1	
TOTAL	1	

Yellow-bellied Marmot

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		50
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	1	
REPRODUCTION	1	
TOTAL	1	

Hoary Marmot

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		50
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	1	
REPRODUCTION	1	
TOTAL	1	

Columbian Ground Squirrel

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		5
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.1	
REPRODUCTION	.1	
TOTAL	.1	

Cascade Golden-mantled Ground Squirrel

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		5
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.1	
REPRODUCTION	.1	
TOTAL	.1	

Red Squirrel

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		50
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	2	
REPRODUCTION	2	
TOTAL	2	

Northern Flying Squirrel

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		50
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	2	
REPRODUCTION	2	
TOTAL	2	

Northern Pocket Gopher

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		3
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.1	
REPRODUCTION	.1	
TOTAL	.1	

Great Basin Pocket Mouse

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		5
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.1	
REPRODUCTION	.1	
TOTAL	.1	

Beaver

MINIMUM POPULATION		10
MINIMUM HABITAT AREA (HECTARES)		100
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	10	3
REPRODUCTION	1	
TOTAL	10	3

Western Harvest Mouse

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		20
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.4	
REPRODUCTION	.4	
TOTAL	.4	

Deer Mouse

MINIMUM POPULATION		10
MINIMUM HABITAT AREA (HECTARES)		15
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	1.5	
REPRODUCTION	1.5	
TOTAL	1.5	

Bushy-tailed Woodrat

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		8
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.3	
REPRODUCTION	.3	
TOTAL	.3	

Southern Red-backed Vole

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		40
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	1.5	
REPRODUCTION	1.5	
TOTAL	1.5	

Heather Vole

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		10
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.4	
REPRODUCTION	.4	
TOTAL	.4	

Meadow Vole

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		3
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.1	
REPRODUCTION	.1	
TOTAL	.1	

Montane Vole

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		3
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.1	
REPRODUCTION	.1	
TOTAL	.1	

Long-tailed Vole

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		5
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.2	
REPRODUCTION	.2	
TOTAL	.2	

Muskrat

MINIMUM POPULATION		10
MINIMUM HABITAT AREA (HECTARES)		5
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.5	
REPRODUCTION	.5	
TOTAL	.5	

Northern Bog Lemming

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		5
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.2	
REPRODUCTION	.2	
TOTAL	.2	

Meadow Jumping Mouse

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		3
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.1	
REPRODUCTION	.1	
TOTAL	.1	

Western Jumping Mouse

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		13
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	.5	
REPRODUCTION	.5	
TOTAL	.5	

Porcupine

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		375
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	15	
REPRODUCTION	15	
TOTAL	15	

Gray Wolf

MINIMUM POPULATION		10
MINIMUM HABITAT AREA (HECTARES)		150000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	15000	
REPRODUCTION	20	
TOTAL	15000	

Coyote

MINIMUM POPULATION		10
MINIMUM HABITAT AREA (HECTARES)		40000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	2000	4000
REPRODUCTION	1	
TOTAL	2000	4000

Red Fox

MINIMUM POPULATION		10
MINIMUM HABITAT AREA (HECTARES)		1800
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	350	
REPRODUCTION	.1	
TOTAL	350	

Black Bear

MINIMUM POPULATION		15
MINIMUM HABITAT AREA (HECTARES)		15000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	1000	1000
REPRODUCTION		
TOTAL	1000	1000

Grizzly Bear

MINIMUM POPULATION		15
MINIMUM HABITAT AREA (HECTARES)		3000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	2000	5
REPRODUCTION		
TOTAL	2000	5

Raccoon

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		2500
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	100	
REPRODUCTION	100	
TOTAL	100	

Marten

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		12500
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	500	
REPRODUCTION	500	
TOTAL	500	

Fisher

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		37500
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	1500	
REPRODUCTION	1500	
TOTAL	1500	

Ermine

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		1000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	20	
REPRODUCTION	20	
TOTAL	20	

Long-tailed Weasel

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		1250
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	25	
REPRODUCTION	25	
TOTAL	25	

Mink

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		625
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	25	
REPRODUCTION	5	
TOTAL	25	

Wolverine

MINIMUM POPULATION		20
MINIMUM HABITAT AREA (HA)		1,000,000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	50,000	
REPRODUCTION	50,000	
TOTAL	50,000	

Badger

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		20000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	800	
REPRODUCTION	800	
TOTAL	800	

Striped Skunk

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		625
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	25	
REPRODUCTION	25	
TOTAL	25	

River Otter

MINIMUM POPULATION		25
MINIMUM HABITAT AREA (HECTARES)		125
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	5	
REPRODUCTION	5	
TOTAL	5	

Cougar

MINIMUM POPULATION		12
MINIMUM HABITAT AREA (HA)		156000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	13000	2600
REPRODUCTION	2	2
TOTAL	13000	2600

Lynx

MINIMUM POPULATION		12
MINIMUM HABITAT AREA (HECTARES)		12000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	500	1,000
REPRODUCTION	1	1
TOTAL	500	1,000

Bobcat

MINIMUM POPULATION		20
MINIMUM HABITAT AREA (HECTARES)		5000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	500	500
REPRODUCTION	1	
TOTAL	500	500

Elk

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		1000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	12	12
REPRODUCTION		
TOTAL	20	20

Mule Deer

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		400
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	8	8
REPRODUCTION	2	
TOTAL	8	8

White-tailed Deer

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		400
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	8	8
REPRODUCTION	2	
TOTAL	8	8

Moose

MINIMUM POPULATION		50
MINIMUM HABITAT AREA (HECTARES)		5000
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	100	35
REPRODUCTION	5	
TOTAL	100	35

Mountain Goat

MINIMUM POPULATION		60
MINIMUM HABITAT AREA (HECTARES)		1800
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	30	30
REPRODUCTION	10	
TOTAL	30	30

Bighorn Sheep

MINIMUM POPULATION		60
MINIMUM HABITAT AREA (HECTARES)		1200
AREA (ha) REQUIRED FOR	PER INDIVIDUAL	
	SUMMER	WINTER
FEEDING	20	10
REPRODUCTION	5	
TOTAL	20	10

WILDLIFE HABITAT HANDBOOKS FOR THE SOUTHERN INTERIOR ECOPROVINCE

Volumes in the series

Volume 1	Species notes for mammals.
Volume 2	Species notes for selected birds.
Volume 3	Species notes for reptiles.
Volume 4	Species notes for amphibians.
Volume 5	Species-habitat relationship models for mammals.
Volume 6	Species-habitat relationship models for selected birds.
Volume 7	Species-habitat relationship models for reptiles.
Volume 8	Species-habitat relationship models for amphibians.
Volume 9	Wildlife habitats.
Volume 10	Silvicultural options.
Volume 11	Users guide to a species diversity management system.